Gelia T. Castillo

Beyond Manila

Philippine Rural Problems in Perspective

CANADA

IDRC-116e

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Postal Address: Box 8500, Ottawa, Canada K1G 3H9
Head Office: 60 Queen Street, Ottawa

Castillo, G.T.

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INTERNATIONAL DEVELOPMENT RESEARCH CENTRE • CENTRE DE RECHERCHES POUR LE DEVELOPPEMENT INTERNATIONAL •

CANADA

DRC-116e

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FOREWORD

Dr Gelia Castillo is one of the most distinguished scholars of the Philippines. A professor of rural sociology at the University of the Philippines, her work has won her widespread acclaim both in her own country and on the international scene. Her grasp of the fundamental issues of rural development has resulted in many demands on her services as a consultant or committee member from international organizations as diverse as the World Bank and the International Potato Centre.

In 1976-1977 Dr Castillo was awarded an IDRC Research Fellowship. This award is made annually to a selected few senior researchers in recognition of excellence and some special contribution to development to permit them a year of research, reflection, and writing. During her Fellowship year Dr Castillo completed the writing of Beyond Manila, a major work that brought immediate recognition. In 1978 Dr Castillo received the University of the Philippines' Annual Research Award for Beyond Manila. The citation for that award called it "An in-depth and analytical study of the actual problems and needs of the rural areas in relation to countryside development. An invaluable treasure trove of data for policy-makers and development officers." The study aroused considerable interest internationally as well, and the 100 three-volume sets that Dr Castillo had reproduced proved insufficient to meet the demand.

In preparing this edition of the study in one compact volume, IDRC has worked closely with Dr Castillo to ensure that there are no essential differences between it and the original. In March 1979 Dr Castillo was appointed to a three-year term as a member of the IDRC's international Board of Governors.

Beyond Manila is a fascinating comprehensive overview of research on rural society and rural problems that will be of lasting value to all those concerned with development issues in the Third World.

DAVID W. STEEDMAN

Director
Social Sciences Division
International Development Research Centre

PREFACE

For many years I lamented the fact that our social-science courses were taught mainly through Western books and Philippine society was often interpreted to us by someone else. To these laments came a sharp and impatient retort from friends: "What are you doing about it?" This volume is a modest response to a very appropriate challenge. In defining our problems as a developing country, we have to look at ourselves through our own eyes. Eloquent pleas for a Philippine social science do not of themselves bear fruit. A lot of hard work underlies its realization. A Philippine social science is not possible without an empirically-generated, systematically organized, and cumulatively developed body of knowledge about our own society. We have a wealth of information buried in volumes of research reports, graduate student theses, national surveys and censuses, many of which are available only to the few academic, research, and development centres around Metro Manila. Ironically, several universities and international development agencies abroad have more of these materials than the majority of our own institutions. In a society characterized by social and economic inequalities, access to information and knowledge is also unequal. A few centres suffer from an embarrassment of riches with respect to access to social-science research results while the majority of colleges, universities, and development centres in the provinces are terribly deprived. When asked why their libraries are extremely wanting in Philippine references, the replies were simple: "American books are donated; Philippine materials we have to buy."

This project, aimed at bringing the results of research on Philippine rural problems to students, teachers, policymakers, development implementers, and other social scientists both within and beyond Manila, was made possible by a Research Fellowship from the International Development Research Centre, Ottawa, Canada. I am particularly grateful to the following:

Dr W. David Hopper and Mrs Ruth K. Zagorin for a maximum of faith and a minimum of bureaucracy; Mrs Louise Rohonczy and Dr Pierre Yves-Paradis for the care and the logistics; The University of the Philippines at Los Baños for a Special Research Detail without pay so I could devote time to this undertaking; The Rockefeller Foundation for a month of uninterrupted writing in glorious surroundings and stimulating intellectual company as a Resident Scholar at their Study and Conference Center in Bellagio, Italy; Ms Perla D. Yñiguez for patiently typing the entire manuscript from handwritten scribblings; and Mrs Lorna P. Domingo and Ms Lily V. Tolentino for picking up many chores, which protected me from small irritations.

Translating this dream into a manuscript when one is wife, mother, and rural sociologist (in that order) has been a real joy because Pol, Bobby, Gertie, and Nina shared in the excitement of its production.

With such support from many sources, I cannot possibly ask for more. If this end product falls short of expectations, nobody else can be held responsible.

GELIA T. CASTILLO

University of the Philippines at Los Baños
College of Agriculture
December 1977

INTRODUCTION

Every blessed research project on any aspect of Philippine rural society has been justified in the name of its potential contribution to knowledge and more heroically to the betterment of human conditions in rural areas. Needless to say, every research project is also an expensive, labour-intensive, data-gathering enterprise conceptualized, designed, and operationalized by our social scientists. Within the past two decades, millions of pesos have been invested in innumerable studies on a wide range of subjects directly or indirectly related to rural development. At this point, we have no shortage of research on rural society and rural problems, but we lag considerably behind in the distillation of these research results so that they can become part of the body of knowledge that is fed into the school system and infused into the ethos that propels the nation's technocrats, policymakers, and political leaders into rural development actions of one kind or another.

The purpose of this volume is to bring to our social-science students and to those who charter the course of our national development, a research-based picture of Philippine rural problems with a rural-urban perspective and a regional dimension. To the international development community, this serves as a lengthy introduction to the Philippines by the "natives." Other Third World countries will see much of themselves between the lines and within the pages.

For each of the chapters, research findings from relevant studies were reviewed and organized around a particular problem area. The first two chapters outline the patterns of poverty, inequality, employment, and income sources. The next two attempt to identify, define, and describe the different varieties of farms, farmers, and farmers' labourers. Chapter 5 presents the family and household as the microworld of the Filipino, while Chapter 6 portrays the Filipino woman as wife, mother, worker, and citizen. Chapter 7 gives us the face of the future via our rural youths. Chapters 8-11 deal with education, technology transfer, internal migration, and time as a dimension of development. The last chapter is a reflection on what lies Beyond Manila.

Some readers will doubtless find this piece of work too detailed. For them, a summary has been provided at the end of each chapter. Nevertheless, I believe that a generalization gains credibility only as it has been cluttered by the inconveniences of detail and the intractability of coherence. The elegance and neatness of a macromodel have their functions as a representation of reality for academe, but to those who have to do something about this reality -- elegance and neatness are often a fantasy.

Finally, this volume is a rural social scientist's "lobby" for the primacy of rural development not only in our thoughts and on our lips but in the day-to-day decisions we make in the allocation of scarce material and manpower resources. To all of us who live and work in Metropolitan Manila and who enjoy the "first fruits of development," may we find the intellectual discomfort that could be a prelude to a more genuine *rural mindedness*.

CHAPTER I

"But some are more unequal than others"
or
THE MANY FACES OF INEQUALITY IN THE PHILIPPINES

The decade of the 70s has found us more concerned or at least more articulate than ever about the equity issue, particularly because the Philippines is often described as a poor but developing country suffering from a very inequitable income distribution. This means that wealth is concentrated in the hands of a few while the majority are poor and deprived. In chartering our development course, it has become fashionable to include the achievement of greater equality as as much of a verbalized goal as elimination of mass poverty. But the pursuit of this goal is neither simple nor self-evident even when the political will is there. Inequality conceals and manifests itself in different degrees and in a variety of ways infinitely more complex than many indicators suggest. In other words, inequalities are not only clothed in different garbs, they also come from different sources and some of them are more unequal than others.

If we are to promote greater equality and to eliminate poverty, we must identify where the crucial and larger inequalities lie, for even equality is relative to a reference point. Equal to whom? With respect to what?

This chapter attempts to: outline the nature and magnitude of rural-urban differentials in quality of life; identify the other faces of inequality associated with the development process; and describe some socio-cultural phenomena that appear to mitigate the inequities.

Rural-urban differentials in quality of life

The Philippines, despite our Miss Universes, our Fifth Avenue buildings, and our plush hotels and condominiums in Makati, is essentially a nation of villages and the majority of Filipinos are "Tagabaryo" (from the village). A 1976 listing of the Department of Local Government and Community Development enumerates 40 111 barrios (now known as *barangays* or the smallest unit of government at the village level), 1522 municipalities, 60 cities, 72 provinces, and 3 subprovinces in the country. The Philippines population, as of 1970, is only about one-third (31.8%) urban, distributed as a percentage of each region's population:[1] Region I Metropolitan Manila - 100.0;

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[1]Region I - *Metropolitan Manila* (Manila, Quezon City, Pasay City, Caloocan City and Makati, Mandaluyong, Navotas, San Juan of the Province of Rizal). Region II - *Ilocos* (Abra, Ilocos Norte, Ilocos Sur, La Union, Mountain Province, Kalinga-Apayao). Region III - *Cagayan Valley* (Batanes, Cagayan, Isabela, Nueva Vizcaya, Quirino). Region IV - *Central Luzon* (Bataan, Bulacan, Nueva Ecija, Pampanga, Pangasinan, Tarlac, Zambales). Region V - *Southern Luzon and Islands* (Batangas, Cavite, Laguna, Marinduque, Occidental Mindoro, Oriental Mindoro, Palawan, Quezon, Rizal). Region VI - *Bicol* (Albay, Camarines Norte, Camarines Sur, Catanduanes, Masbate, Sorsogon). Region VII - *Western Visayas* (Aklan, Antique, Capiz, Iloilo, Negros Occidental, Romblon). Region VIII - *Eastern Visayas* (Bohol, Cebu, Eastern Samar, Leyte, Negros Oriental, Northern Samar, Siquijor, Southern Leyte, Western Samar). Region IX - *Northern Mindanao* (Agusan del Norte, Agusan del Sur, Bukidnon, Camiguin, Lanao del Norte, Lanao del Sur, Maranao, Misamis Occidental, Misamis Oriental, Surigao del Norte, Surigao del Sur). Region X - *Southern Mindanao* (Cotabato, Davao del Norte, Davao del Sur, Davao Oriental, South Cotabato, Sulu, Zamboanga del Norte, Zamboanga del Sur).
This 10-regional classification is used in this book unless otherwise stated.

Region II Ilocos - 17.1; Region III Cagayan Valley - 15.1; Region IV Central Luzon - 28.7; Region V Southern Luzon - 41.0; Region VI Bicol - 19.2; Region VII Western Visayas -26.1; Region VIII Eastern Visayas - 24.2; Region IX Northern Mindanao - 20.4; and Region X Southern Mindanao - 19.7.

Because rural-urban comparisons are going to be a major focus of the book, the census definition of urban is spelled out as follows:

"a. In their entirety, all cities and municipalities which have a population density of at least 1000 persons per square kilometer.

b. Poblaciones or central districts of municipalities and cities which have a population density of at least 500 persons per square kilometer.

c. Poblaciones or central districts (not included in a and b) regardless of population size which have the following: (a) Street pattern, i.e. network of street in either at parallel or right angle orientation; (b) At least 6 establishments (commercial, manufacturing, recreational and/or personal services); and (c) At least three of the following: (1) A town hall, church or chapel with religious service at least once a month; (2) A public plaza, park or cemetery; (3) A market place or building where trading activities are carried on at least once a week; and (4) A public building like a school, hospital, puericulture and health center or library.

d. Barrios having at least 1000 inhabitants which meet the conditions set forth in c above and in which the occupation of the inhabitants is predominantly non-farming/fishing" (47).

As of 1975, less than 8% of the barrios qualified for the urban definition hence more than 90% of all Philippine barrios are really agricultural communities at different stages of incipient modernization. But the reason for our concern with the barrios is not only because the majority of our people live there but because there is a difference in the quality of life of those who live there and those who live elsewhere. The distribution of families by income class shows that Region I (Greater Manila) leads all the other regions followed by Region V (Southern Luzon) and Region IV (Central Luzon). The average income in Manila (P7785) is about three times as high as the three regions with lowest income levels such as III Cagayan (P2390), VIII Eastern Visayas (P2548) and VI Bicol (P2785). Another indicator of income concentration is the fact that in 1971, 16% of the upper income families (P6000-20 000) received 48% of total income while 59% in the lowest income group (< P3000) had only 24% of total income. The trend over a 15-year period 1956-71 shows some narrowing of the urban-rural gap as evidenced by the drop in the ratio of urban to rural incomes from 2.45 in 1956 to 2.08 in 1971. This is partly due to the increase in real earnings of farm labourers, improvements in incomes from nonagricultural activities in the rural sector and relatively higher prices for agricultural products. The degree of income concentration in rural and urban areas has also become more equal proportionately speaking, i.e. in 1971 total family income controlled by the top 5% of families was 22.6% for both rural and urban areas, but we must remember that urban incomes are twice as high as rural incomes. Another indicator of improving income distribution is the decline in the proportion of total family income that accrued to the top 5% of families from 27.7 in 1956 to 24.3 in 1971. On the other hand, there was some worsening of the rural income distribution, which was reflected by an increase in the index of quintile inequality from 0.34 in 1956 to 0.41 in 1971. This could be due to past low incomes in an absolute sense that were unevenly elevated by differential attention to different regional areas of the country. As the ILO Mission observed: "the present highly unequal distribution of income is largely due to a highly unequal regional distribution of almost everything" (184, p. 378).

Based on indicators of income distribution from 1956 to 1971, there has been some reduction in the urban-rural gap and some improvement toward more equal income distribution in the country as a whole. Within the *rural* sector we can say that income-wise, families have become *less equally poor* and in the urban areas, families have become a *bit more equally well-off*.

Because aggregate national and regional statistics tend to mask the actual situation at the more local level, Table 1 presents information on distribution of families by income categories, by region and province and location of low-income families, by rural-urban distribution within each province. Using P3000 and below as low-income in 1971, for the entire country, 59% of the families were classified as low-income of which 82% were in the rural sector with about 69% of them engaged in

agriculture. For a dozen provinces, more than 95% of low-income families are rural-based as in: Kalinga-Apayao, Lanao del Norte, Cotabato, Batangas, Marinduque, Negros Oriental, Catanduanes, Bukidnon, Mt. Province, Masbate, Ifugao, and Catanduanes. The places that registered a high incidence of low-income families in the urban areas are Manila and suburbs, which are 100.0%, urban; Rizal, 82%; Cavite, 47%; and Laguna, 53%. The regions with the highest proportion of low-income families are: Eastern Visayas, 79.0%; Cagayan Valley, 75.7%; Bicol, 74.7%, and Ilocos Region, 72.7%. Conversely the places with the lowest proportion of low-income families are Manila and suburbs, 22.3%; Central Luzon, 36.6%; and Southern Luzon, 51.4%. The most depressed provinces because more than 90% of their families are low-income are: Sorsogon, Aklan, Antique, and Surigao del Norte.

Figure 1 gives a graphical presentation of the data in Table 1. These graphs show the different shapes that income distribution takes within the Philippines. The national picture looks like a typical pyramid with a broad base, narrower middle, and an even narrower top. The other graphs may be classified into six different types:

(1) Majority of families are poor but there is a great deal of equality. It is an *equal but poor* situation and the pyramids depicting them are most flat with little "elevations" or only a few high income families. Eastern Visayas, Cagayan Valley, Bicol Region, Central Visayas, and Ilocos represent this type of income distribution.

(2) A second situation depicts *less poverty* than the first but there is *slightly more inequality* as shown by West Visayas, Northern Mindanao, and West Mindanao.

(3) A narrower base but an expanding middle and upper income group as represented by Southern Mindanao and Southern Luzon.

(4) The fourth type of income distribution shows a larger middle-income than either the low-income or high-income groups. Central Luzon exhibits this pattern, which is closest to the American stratification except for the fact that the base (low income) and tip (high income) of the pyramid are much narrower indicating greater equality at the middle level.

(5) Manila and Suburbs emerges as an inverted pyramid with more high-income followed by fewer middle and even less lower-income families. There is *greater inequality* but *less poverty*, although the poverty in this case stands out more because of the contrast or the background against which it occurs. They are the "poor" among many who are rich. In other words, Metro Manila families are *more unequal* but *relatively well-off*.

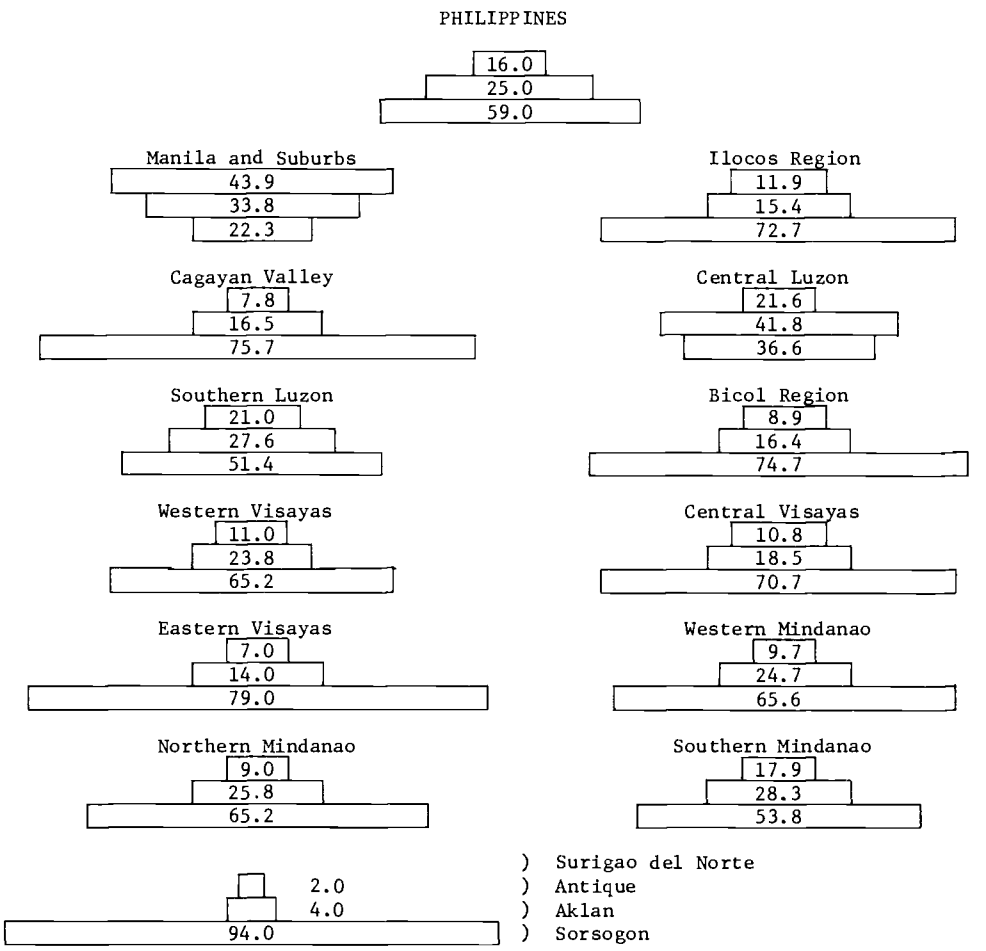
(6) The flattest pyramid is that which portrays the income distribution of families in the four poorest provinces - Surigao del Norte, Antique, Aklan, and Sorsogon. Practically all families are low income, hence the situation is near perfect as far as being *equal but poor* is concerned.

Although the inverted pyramid is more unequal, this state of affairs is probably preferable to being equal but poor. Even when one thinks of redistribution, the big top has more to redistribute. The flat pyramid can only share poverty.

Besides being the leading region with respect to family income, Greater Manila enjoys quite a few advantages with respect to the distribution of social services and the "benefits of development." To illustrate the meaning of this lopsidedness, in 1973, out of 38 million Filipinos, only 22.5% enjoyed the blessings of electricity. Of the 1432 towns only 50% had electric service. However, all the chartered cities, although not all households, received this service. Fifty percent of the population served resided in the Greater Manila area, 19.4% in other chartered cities, and 30% came from the rest of the country. But what we need to know is that Metropolitan Manila accounted for 73.5% of the total energy consumption (137). In the matter of local telephone connections, 68.3% of them were located in Rizal and Greater Manila for the year 1973-4 (323, p. 27). If we bear in mind that the 5 million population of Greater Manila makes up only about 13% of total Philippine population, we can truly appreciate the significance of these statistics.

As far as professional health services are concerned, in 1970, the population per physician for the rural sector was 5387 and for the urban sector it was 1409. Sixty-two percent of our physicians were serving 36% of the country's population residing in Regions I, IV, and V. Greater Manila is in a privileged position with 600 persons per physician and 425 persons per nurse while the national figures are 2800 and 2217,

Figure 1. Graphical presentation of the income distribution situation of families in each region based on data on Table 1.



respectively. Although about 1200 new physicians are registered each year, 60% are lost through immigration. In 1970, out of the total 38 820 registered nurses only 16 550 or 43% are residing in the Philippines. Almost half (46%) of these 16 550 nurses are practicing in Greater Manila serving only a minority of our population (194, p. 19-42). Hospital beds also tend to be concentrated in Southern Luzon (56%), mostly Greater Manila. While the number of beds for every 1000 population is 1.28 for the Philippines, there are 3.05 for Southern Luzon.

For the everyday amenities of life, let us turn to Table 2, which compares the situation in 1968 and 1973. Except for number of rooms in the house where there has been a decline over the 5-year period, in all other items such as toilets, cooking fuel, lighting, and source of water supply, an increase in percentage of households enjoying these facilities has occurred although the housing situation has apparently deteriorated. For those of us who enjoy the benefits of modern technology, it might help to know that 73% of homes use wood, etc. for fuel and have the luxury of turning on a faucet at home to wash their faces. Even hollow block homes are a relative rarity. The chair with a back which we take for granted is found only in half of the households; sala (sofa) sets grace only 35% of the living rooms. The elegance of table service is unknown to 35% who do not possess dining tables with long legs. They eat on the floor. The bed, which we assume everyone sleeps on is not available in 63% of the homes. The clock which governs modern life fails to rule in more than half of the households. Finally, the motor vehicle without which we seem to be paralyzed to immobility is part of the lifestyle of less than 6% of the households, Table 3.

To further illustrate the advantages of Manila over all the other regions, Tables 2 and 3 provide us with a number of contrasts. In Greater Manila in 1973 55% of the households used flush toilets; whereas, nationally, only 17% had such a facility. The corresponding figures for Manila and the country as a whole are 67 against 19% of households using electricity and gas as cooking fuel; 96 against 28% lighting their homes electrically; 75 against 14% serviced by piped-in water supply; 49 against 16% with hollow block houses; 43 against 14% with cement floor houses, and a higher percentage of Greater Manila households possessing items such as chairs with backs, sala sets, dining tables with long legs, sewing machines, beds, clocks, radios, and motor vehicles. The 1970 Census likewise showed the urban-rural contrast in ownership of radios, television sets, and refrigerators. In the urban areas, 64% of the households had radios; 16.3% television sets, and 15.7% refrigerators. Among rural households, 42% own radios; 0.8% own television sets, and 1.0% have refrigerators. Although Greater Manila is a tangled mass of TV antennas, only 5.5% of all households in the country have TV sets. Manila houses are also bigger than rural ones. The only two major items where Greater Manila showed disadvantage are house and lot ownership. Eighty-one percent of Philippine households in 1968 owned their houses while only 43% of Greater Manila households could be considered home owners. It must be pointed out, however, that the rural advantage in this regard cannot be regarded as a real advantage over Manilans because most of the village homes are made of light materials and have only the barest furnishings in them. With respect to home lots, only one-fourth of Manila households claim to be owners, while 50% of the country's households enjoy such a possession (77, p. 24-5). The situation with regard to this matter might have deteriorated. According to a more recent (1974) survey, 37% of households studied (41%, rural and 30%, urban) were classified as *squatters* and *families who stayed in as caretakers for the real owners of the place they live in*. Only 36% of total households own their homelot (41% rural and 27% urban) (256). It is interesting to note that although 68% of housing needs are for rural housing (1975 estimates, 323), urban housing always seems to have higher priority. Furthermore, low-interest housing loans have not always gone to low-income families. A World Bank report observed that the loans available from the Government Service Insurance System (GSIS) and the Social Security System (SSS) usually benefit only the highest paid employees, particularly those in Metropolitan Manila. After analyzing the average loans of both the GSIS and SSS, which amount to 8.8-9.0 times the median Philippine family income, the report concluded that both institutions finance housing for families in the top 10 or 20% of the income distribution scale. Thus the World Bank said: "the relatively low-earning GSIS member has through his mandatory contributions, subsidized the housing of a few high-income employees" (37). On the road situation, the Four-Year Development Plan has defined the problem as follows: "On the whole, there is only one-fourth kilometer of road per square kilometer of land area in the country and the road network is unevenly distributed, with the more developed regions, principally

Metropolitan Manila, exhibiting the highest road density and the underdeveloped areas in Mindanao showing the sparest network."

In an attempt to quantify the quality of life, the Development Academy of the Philippines (DAP) has proposed a set of social indicators of overall Philippine well-being. In assessing the problem of the poor, two poverty lines were used as norms: a *food threshold* and a *total threshold*. The former consists of "the amount of income necessary to buy the food consumption basket recommended by the Food and Nutrition Research Center." After making adjustments for differences in cost of living, DAP concluded that: "For a family of six in 1974, the food threshold stands at P6,633 per year in Greater Manila, P5,306 in other urban centers and P4,633 in rural areas. It has been seriously affected by inflation. In 1961, the threshold for a family of six in Greater Manila was only P1,789; in other urban centers, P1,432 and in rural areas, P1,253. Poverty has clearly worsened. In Greater Manila, the proportion of families below the food threshold grew from 17% in 1965 to 25% in 1971; in rural areas it grew from 39 to 48%. But in other urban centers, it appears to have improved from 27 to 24%. The number of persons below the food threshold grew from about 11.6 million in 1965 to 16.6 million in 1971." On the assumption that food constitutes 60% of the total budget, a *total threshold* was computed and the following assessment made: "For a family of six, the 1974 total threshold in Greater Manila is P10,550 per year, in other urban centers, P8,844 and in rural areas, P7,738. By the total threshold criterion, in 1971 about half of the families in urban areas and about three-fourths of the families in rural areas should be considered poor... The number of people below the total threshold stood at about 22 million in 1965 and rose to about 26 million in 1971" (116).

The predominantly subsistence character of the rural existence is further illustrated in Table 4. Food takes up almost 60% of the rural family's expenditures, while the city family devotes less than 50% and those in Metro Manila spend about 42% for the same purpose. This simply means that rural families are preoccupied with "bread and butter" concerns and have precious little for other things in life such as housing, clothing, health, education, etc. This is a fact that we have to live with and take into account in the design and implementation of rural-development programs. Perhaps it is our failure to recognize this fact that explains why results from all our efforts are less than our expectations. Food needs are tangible, basic, and immediate. They have to be met. Needless to say, protein and calorie deficiencies accompany poverty (Table 5). We can see that Eastern Visayas, Western Visayas, and Southwestern Mindanao appear to be more deficient in their diets than the other regions. Rather intriguing is the lower deficiency levels for Ilocos and Cagayan Valley although these two are the poorer regions of the country. Perhaps dietary habits make the difference, but nevertheless, some regions seem to be better-fed than others. If we divide the total available food supply by our population, the 1970 estimates would give us the impression that the minimum dietary requirement for Filipinos, which is 2187 calories and 54.4 grams of protein per person per day as prescribed by the Food and Nutrition Research Center (FNRC), has been met, but as Mangahas points out: "The distribution of food consumption like the distribution of income (in fact because of it), is not only very unequal, it is quite skewed. In other words, there are a few people whose consumption is very much higher than the average and there are a great many more people whose consumption is below the FNRC norms. Thus, if economic planners intend that every person should consume *at least* 2187 calories per day, they should take account of the skewed distribution and set a target *average* availability of calories per capita which is *much larger* than 2187 calories" (227, p. 95-8). Another reason for targeting beyond the 2187 calories is that the minimum dietary requirement should not be treated as the optimum or the maximum. It takes more than the minimum calories to enable a nation not only to survive but to thrive with energy, vigour, and vitality. As it is, malnutrition is not a stranger to many Filipino families.

Even education, which is supposed to be more "abundant" and better distributed than many other social services, exhibits the usual rural-urban-Greater Manila differentials (Table 6). The main trend is: the more urban the place, the higher the proportion of household heads who have completed higher educational levels. The percentages of those who have completed or have had some college education are 36% for Greater Manila; 25% for other urban; and only 5% for the rural areas. Conversely, the more rural the place of residence, the higher the proportion of household heads who have had some or have completed only elementary schooling. The corresponding proportions are 66% for rural household heads; 42% for other urban, and only 26% for Greater Manila.

The significance of education as a determiner of one's life chances is illustrated in the observation that, those who have higher education also tend to have higher incomes although the relationship is far from being a perfect one.

From another study on the characteristics of the labour force, a more depressing piece of information emerges. The more agricultural the area of the country, the higher the proportion of males employed with no schooling (309, p. 282-300). In trying to account for the higher levels of education in Greater Manila than in the rural areas, there are some likely explanations: more facilities for higher education in the city; higher incomes, which enable families to afford more education; higher quality education at the lower levels, which enables them to compete and survive in high school and college; and rural-urban migration, which attracts the better-educated to move to the city. Finally, college-educated rural dwellers have difficulty finding jobs in the rural areas. Regardless of what the reasons are, the reality is still one of unequal rural-urban distribution of educated individuals.

Sometimes in the comforts of our middle-class existence, we rationalize that perhaps the poor are happy the way they are. However, evidence from a number of studies does not support this rationalization (70, 116, 231, 247). The poor have a sense of inadequacy of their income, their food, their housing, etc. and have a concept of what they need in order not to be classified as "poor." They aspire for more schooling for their children as a way of escaping poverty in the future. Their goal in life is very far from mere freedom from hunger. Farm families want much more from life than the satisfaction of physiological food needs; they also want material security (52%) and self-esteem (32%), which come from having more than a purely subsistence existence (182).

A study by Porio et al. showed a relationship between a feeling of happiness and the respondents' assessment of their situation in life. Those who felt they had the best possible life considered themselves happier than those who felt they were in a worse position. Happiness was gauged from responses to the question: "Considering everything that happened to you recently, how would you say things are with you -- would you say you're happy, fairly happy or not too happy?" Rural respondents were scored to be unhappy twice as often as the urban (276). In the light of rural-urban differentials in quality of life, greater unhappiness among the rural respondents is not without basis. But inequality, like many things in life, wears many faces which are not always evident or written about.

The many faces of inequality

Although our discussions have centred on inequalities, the data presented earlier tell us that the problem is both *absolute* and *relative* poverty. The picture we have drawn of our income distribution shows a pyramid with a thick bottom and a narrow tip. Ideally, we aim to raise the floor level of the pyramid as well as to change the shape of the distribution such that we have a big, fat middle and a slender top and bottom. Flattening out the pyramid is less than satisfactory because, at the moment, it is not very tall and the likely outcome even of perfect redistribution is "equal but poor." If possible, it would be great to be "equal and rich." Unfortunately it is easier to make the rich richer but very difficult to make the poor less poor although it cannot be said that we have not tried. In many ways, rural development is a continuous process of alleviating small inequalities occurring at different levels while attempting to narrow rural-urban, regional, and income class disparities.

The poor and less poor

This phenomenon is illustrated in a study of changes in seven poor villages where a rural-development project was implemented for a 7-year period (70). To the question: "In what ways do you think people in your barrio differ with respect to their status in life?" the most significant response in 1963, given by one-fifth of the respondents, was: "*There are no differences in status here: we are all poor.*" Thirteen percent did not know how people differed in status; 12% mentioned differences in tenure status; 21% gave responses pertaining to relative wealth or poverty. An analysis of the responses belonging to this category revealed that "rich" and "poor" did not have the same social-class meaning in the sense of upper and lower class because there were no really rich people in these barrios. This was evident in expressions they used such as "some are poor; some are a little bit better-off"; or "some have sufficient means for everyday

needs; others don't." Many respondents emphasized that more people were poor than were better-off. The notion of sufficiency/insufficiency is related to the subsistence character of life in these barrios and sufficiency in the most essential necessities of life was also regarded as a better-off situation.

In 1969 only 2% of the respondents said there were no perceived differences in barrio people's status in life. Apparently, there was either more consciousness as to what produces status differences or more actual basis for differentiation. Perhaps the perception of being all poor had become less descriptive of the situation in the barrios after 6 years of rural-development project implementation. Other changes included a drop from 21 to 14% among those mentioning notions of relative wealth or poverty and an increase in those who were aware of differences in source of livelihood (occupation) and in those who saw differences in individual drive to improve livelihood. Source of livelihood differed in terms of farm/nonfarm but the distinction was stronger with respect to whether one was a farmer or a mere farm labourer. The distinction made in responses was greater in this respect than that between share tenant and lessee. What was crucial for being better-off in the barrio, therefore, was having land to cultivate, whether or not one owned it. From this study and informal conversations and observations, the "lowest guy in the totem pole" was one who had no land to cultivate and was, therefore, dependent on available but unstable farm jobs.

There was increased attention paid to differences observed in individuals' drive to improve their livelihoods (a rise from 7 to 14%) as revealed in such statements as: "some are lazy, some are industrious"; "some work hard even when they already have, while others don't have and yet do not work hard." This change might be explained by the fact that the introduction of the rural-development project brought certain opportunities for improvements in farming and that some had been more alert to such advantages than others. Furthermore in 1969, there were certain criteria for status differences that were not mentioned in 1963. These included differences in land area being cultivated, differences in yield, and availability of capital and other resources. Doubtless the developments in rice production have contributed to these differences. For these poor villages, the nature of status differences can be expressed in terms of income-sufficiency/insufficiency: *sufficiency of earnings even for unusual expenses; sufficiency for ordinary expenses; insufficiency for extraordinary expenses; and insufficiency even for ordinary needs.*

In instances like this where absolute poverty prevails, any development program will inevitably create inequalities partly because of differential capacity to respond to and benefit from the program and partly due to the inability of any undertaking to reach everyone at the same time. But if we stepped out of the narrow village perspective into the larger society, any investment toward rural welfare is a step toward alleviating absolute poverty and reducing the distance between rural and urban quality of life.

The inequities in land reform

Because of the classical picture of concentrated landownership in the hands of a few wealthy families, redistribution of land was regarded as an imperative toward equality. Land reform, therefore, has been pursued with greater vigour since 1972 and was described as the most "radical program" of the New Society. However, in the process of implementing land reform, a number of "internal inequities" other than that of the "original" one between landlord and tenant emerged.

Inequalities among tenure groups - Mangahas, in his analysis of economic benefits from land reform (224) expanded the tenure hierarchy to include: owner-operators, reform leaseholders, ordinary leaseholders, and share tenants. Reform leaseholders are those whose rentals were limited to the prescribed ceiling during the first phase implementation of the 1963 Agricultural Land Reform Code, which sought not only to shift from share tenancy to leasehold but also to reduce rentals. Farmers who were lessees either before or during the early years of land reform pay very minimal rentals of less than 10 cavans per hectare per crop (70, 171). This was possible because they went on leasehold before rice yields increased. Mangahas' estimates showed that counting only farm income, "owner-operators have an income which is almost 33% greater than that of reform leaseholders, or 40 to 60% greater than that of ordinary leaseholders, or 130 to 140% greater than that of share tenants." These "income differentials," according to Mangahas are due "entirely to rental differentials."

The equity issue among rice and corn landowners - In a complementary analysis of landowners, Mangahas emphasizes that "the hierarchy among landowners is determined primarily by the size of the estate. The larger the estate, the greater the ability to absorb the transfer-loss on account of land reform; and vice-versa for small estates." Because of the stage-by-stage implementation, which proceeds from the larger to the smaller estates, "each successive stage involves a larger number of landowners of progressively lower ability to shoulder loss, and hence the opposition to the implementation of the program has also grown progressively." This latter development assumes greater significance in the light of estimates that 183 000 landowners or 83% of all rice and corn tenanted land are 7 ha or less. Mangahas argues for a *progressive* rather than a *proportional* repayment scheme if the equity criterion was really considered important. Otherwise, if an owner of 1000 ha receives 100 times as much as a landowner of 10 ha, land reform would only succeed in breaking up an estate but not the economic and political power derived from it. His proposal is a progressive compensation rate that ranges from P5000/ha for estates of 7 ha or less to P500/ha for estates of 50 ha or more. This scheme is based on the belief that "small landowners deserve proportionately greater compensation than large landowners. Just as the poorest farmers (the share tenants) deserve more attention than those relatively well-off (the reform leaseholders and the amortizers), so, too, do the small landowners deserve relatively greater compensation" (224).

The inequality of sacrifice among different types of landowners - At present the land-reform program affects only tenanted land used to grow rice and corn. It excludes areas planted to sugarcane, coconut, abaca, and bananas; cattle ranches; fishponds; and urban real estate. A rice landowner who has 7 ha or less that are subject to conversion to leasehold would probably feel very deprived compared to the sugar and coconut landowners who have 100 ha or more and who are not personally cultivating their land but are exempt from land reform. Urban real-estate owners are also quite privileged in this regard. The price of residential land in urbanizing areas goes up whether or not the owner does anything with it. There is no ceiling on ownership of urban and residential land, hence the extremes of income distribution find full expression in the difference between legal lot possessors in subdivisions and housing sites and the illegal lot occupants called squatters. Almost as basic as food is the need for a little space on earth for one's place of abode. As mentioned earlier, only about 36% of Filipino households own their houselot, 26% pay rent for it, and almost 40% built houses on rent-free lots. The latter are more popularly recognized as squatters. Although urban squatters get a lot of attention because of their inescapable visibility, there is the reality of rural squatters from which urban squatters most likely originate but who do not generate as much concern as their city counterparts. The issue that emerges is one not only of more general land reform on other types of landholdings, but more of *land use* or natural *resource exploitation*. How do we want to share the productive use, not necessarily ownership of our natural resources? Who and how many should have access to the benefits of our mountains, lakes, rivers, minerals, and even the sea?

The new "land-owning class" and the landless - Many years ago the battle cry was "land to the landless." Later on it became "land to the tiller." During that time also, the agricultural landless were those who did not own the land they tilled, hence tenants were regarded as the landless and the "raging inequality" was that between landlords and tenants. At present the *landless* are *those who do not have land to till, let alone own it*. With the advent of land reform and tenant conversion to leasehold, with the transfer of ownership from the landlord to the lessee either realized, promised, or forthcoming, these "tenant" families are assured of land to cultivate and a corner on which to put up their house. The landless farm labourers, the rural nonfarmers, and the urban farmers are not as fortunate. Would the "new landowning bourgeoisie" be inclined to allow landless farm-labour families and rural nonfarm families to use part of their newly acquired or to-be-acquired 2- or 3-ha farm for a home site? Would they be more generous and compassionate than the traditional landlord? From numerous visits to the countryside, one observes that the poorest looking huts belong to landless labourers. This could suggest that they are worse-off than lessees and tenants or that they are more insecure with respect to the "tenure" of their hut, and therefore, have less incentive to improve it. They can be asked to move out anytime.

From the point of view of promoting their welfare, landless farm labour is a "no man's land." He is not a responsibility of the Department of Agriculture, the Department of Agrarian Reform or of the Department of Labor. Lately however, the latter

has taken an interest in this "marginal man." The problem with this particular sector, even if they became the clientele of a specific government agency, is the difficulty of designing strategies directly for their benefit. Landless farm labour is completely dependent on what happens in agriculture; whereas, landless nonfarm labour is dependent on developments in the service and industrial sectors. For services and rural industries to prosper, there must be an increase in demand and purchasing power. This will have to be domestically generated if export markets are not dependable. Increased farm incomes are the most likely source of this purchasing power (76, p. 248-53).

Inequalities among the employed - The usual dichotomy in employment is *employed-unemployed* and the traditional protagonists in labour relations are *labour* and *management*. Recently, government has been added to make a trisectoral approach. In tripartite negotiations, the *labour representative* very likely represents organized labour located mostly in urban centres. The interests of unorganized labour in farm, nonfarm, and service sectors, the self-employed, and the unemployed are not as likely to be articulated as those of organized labour, which although smaller is better-off. Next to agriculture, the service sector is the most important job provider. Table 7 shows a high proportion of self-employed and unpaid family labour relative to wage and salary workers. Although the latter make up 39% of the labour force, they are predominantly unorganized as shown in Table 8. Only government, business, community, and recreation services have a larger organized than unorganized subsector.

The ILO Mission Report observed a striking gap in labour productivity and in wages between the two subsectors: "output per person in organized commerce is about 6 times as high as in unorganized commerce. For the retail trade alone, average wages in larger establishments are about twice those in smaller establishments. The wage difference between a general grocery store and a sari-sari store is even larger - about 4 to 1." The significance of the unorganized sector, the Report says, is made more striking because "the total unorganized employment in the services and manufacturing sectors accounted for 61% of total non-agricultural employment over the 1961-1971 decade. Excluding government employment, unorganized service and manufacturing employment accounts for 67% of private non-agricultural employment in both 1961 and 1971, i.e. about 2 out of every 3 non-agricultural non-government workers fall in this low-income sector" (184, p. 181).

Encarnacion provides us with some clues on the status of the self-employed compared to the employed. From the 1968 National Demographic Survey he concludes that family heads who are self-employed have on the average, less education, are older, and earn less than the employed. They are relatively more numerous in the agriculture and commerce sectors and there is more underemployment and greater income inequality among them. For both groups, education is the single most important factor explaining income variation, and excepting college graduates, the self-employed earn less at every educational level. Only in the case of college graduates do the self-employed earn more (127).

In view of the large unorganized and self-employed portion of the labour force, the issue is how their welfare could be enhanced as much as that of the smaller organized sector that, because of its organization, is better able to articulate its demands. Encarnacion suggests institutional changes that would collect self-employed workers into more efficient groupings to help the situation.

Some likely mitigators

To the outsider the many inequalities described earlier are startling indeed, hence the question always asked is: "How does such a society survive?" It is not easy to answer this question because direct evidence is hard to come by. In searching for the explanation as to what mitigates these inequalities, we stumbled upon five sociocultural observations that are presented as some likely (although speculative) contributions to the explanation.

Income inequality with social equality - Income distribution assumes a structure inferred from the proportions of our population that fall under different income groupings arranged from highest to lowest. The shape of this structure tells us that we have a skewed distribution, but these income groupings are statistical categories. Social conflict is not inherent in them. A consciousness of kind, a feeling of relative deprivation, a social perception of the inequality and its sources must be crystallized, concreted, and even personalized to determine who is to blame and to stir emotions toward confrontation. As long as differential in status in life are regarded as

reciprocal rather than oppressive relations, the inequalities are reinforced rather than challenged. In this regard it is interesting to note that seldom do tenants complain of usurious landlords and merchants because they perform a function essential to their existence. In other words, "exploitation is in the eyes of the exploited." Obviously there is structural inequality and accompanying structural exploitation arising from the system, but person-to-person insolence and abuse which constitute direct affront to one's dignity as an individual, are to a large degree, probably absent. For example, in an exploitative landlord-tenant relationship, the "exploiter" could be very kind and humane in his dealings with the "exploited." As farmers who prefer to remain share tenants say: "We have good relations with the landlord."

Although the Philippines has great income inequalities, except for the Moro National Liberation Front movement in Mindanao, the country does not have a caste system nor does it suffer from the serious racial, ethnic, religious, or sex discrimination problems that other countries are afflicted with. *We have income inequality with a good measure of social equality.* Perhaps there is also a large educational component in our brand of social equality. The Philippines has a high school-enrolment ratio and is second only to the USA in the proportion of the population in college. Among the reasons for college aspirations is the conviction that college education is a guarantee against lower-class status. It has also proved to be the most important channel for upward mobility. Parents often say that being schooled, even at the elementary level, means that one is less likely to be personally fooled or abused. Basic to social equality is the individual's feeling that he is "equal" to any other man even if he is poor. In the United States, even rich blacks are not exactly regarded as the real "equals" of even poor whites. It is one country with a favourable income distribution but a racial problem that has adverse consequences on social equality. In other words it is possible for a society to have income equality side by side with social inequality.

Some perceive virtue in the old system - With the three-stage shift in tenure status, from share tenant, to lessee, then to amortizing owner as a measure to liberate share tenants from "a life of poverty, bondage and injustice," one would think that all would have been enthusiastic to join the "liberation movement." However, a review of several studies of tenants' responses to the land-reform program showed a less than universal eagerness to be "liberated" (76, p. 259-61). As de los Reyes and Lynch indicated, leasehold converts were "reluctant rebels" (107). It has also been reported that some lessees have refused to accept Certificates of Land Transfer (CLT) while some of those who were recipients want to return theirs. Lest this be interpreted as "stupidity" on the part of share tenants who refuse to be landowners, it must be pointed out that because our land reform is not confiscatory, landowners have to be compensated and tenants have to pay for land that they aspire to own. The holder of the CLT has to pay the amortization of the land transferred to him, the realty tax, irrigation fees, and the production loans. In addition, as member of the Samahang Nayon (a precooperative organization), which is a prerequisite for the CLT, he is obliged to pay the membership fee, to contribute to the Barrio Guarantee Fund, and to deposit a certain percentage of his loans as compulsory savings. When the harvest is bountiful, these multiple obligations could perhaps be met in addition to his family's living expenses. However, as all of us recognize, rice-growing in this country is a terribly risky business. A so-called "normal crop" year is not a very normal occurrence. Floods, typhoons, droughts, disease, and insect pests, sometimes singly, but often in combination, are plagues that the rice farmer is heir to from year to year. Considering what is required to meet the farmer's expenses for subsistence, production, and amortization, one calamity is sufficient to set him back in a very major way. No matter what social evils have been attributed to share tenancy, it has the virtue of risk-sharing between the landlord and the tenant because the inputs and outputs are both shared. Furthermore, the landlord is a dependable source of subsistence. As a lessee with a fixed rental, or as amortizing owner, the farmer pays all the costs and shoulders all the risks. Once his lease rental and amortization payments are fixed, the agreed upon amount has to be paid regardless of crop failures. As one farmer aptly put it: "When the harvest is good, I want to be a leaseholder, if the harvest is bad, I prefer to be a share tenant" (183).

Some share more than others - When some people have more than others, perhaps they also share more than others. Although there is no written law to this effect, our norms have created this kind of expectation. Failure to share is socially disapproved and one earns the label "masamang ugali" or "kuripot" (selfish or stingy). The following inferences may be made from the data in Table 9.

(a) The proportion who have extended help to friends, relatives, and neighbours is higher than those who have asked for help.

(b) There are more people who have given something for help asked than those who have received something for help given.

(c) More urban than rural respondents have indicated neither extending nor asking for help. They tended to be more self-sufficient.

(d) Urban more than rural respondents also tended to give and receive assistance in cash or kind; whereas, more of the rural ones extended and received assistance in the form of services such as marketing, baby sitting, etc.

(e) Although there was slightly more practice of "bayanihan" (mutual help) in the rural than in the urban sector, in general, "bayanihan" as we traditionally know it is very minimal.

(f) Although something is received for any assistance given, more of those who asked for help gave something in return than those who received for help given. This suggests that some transfer is taking place on a person-to-person, family-to-family basis. However, one cannot dismiss the possibility that those who give are more willing to acknowledge it than those who receive. Perhaps people who ask for help are also less willing to admit this. Nonetheless, the norm of being "more blessed to give than to receive" is reflected in these responses.

Vertical mobility occurs - When we see the rural and urban poor and how many they are, we wonder if they will ever be able to break out of the vicious cycle. Table 10 shows that some occupations have more "holding power" than others. For example, two-thirds of the fathers who were farmers had farmer-sons, 26% had sons who were able to move to higher-level occupations, and 7% had sons who slipped down to farm workers. Among fathers who were professional, technical, administrative, and managerial, about 38% of their sons found themselves in the same occupational category, but more than 60% moved down to lower level occupations. At the bottom of the occupational hierarchy are the farm workers. Although 60% of their sons remained in their father's occupation, 40% moved out and up, a few even making it to the top of the ladder. In other words, if one comes from a farmer's family, the probability of also being a farmer is great, but there are those who manage to climb out and up mainly through education. On the other hand, children of professionals and executives do not necessarily end up like their parents. A majority of them slide down the ladder. It also seems easier to move down from the top rather than from the bottom. Apparently, staying on top is just as hard as getting there.

In Table 11 we look at the inflow into different occupations. Obviously, practically all the sons (90%) who are farmers had farmer fathers. Very few of the sons who entered farming came from other occupational backgrounds. Farming definitely seems to be a "resisted," an avoided, or a "closed" occupation for those with nonfarm parental backgrounds. It is interesting that one-third of the sons employed as farm workers came from farmer fathers. These two trends suggest the increasing limits on availability of farmland, hence some farmers' sons could no longer go into farming except as farm labour. What seems encouraging is the fact that all occupations seem to be permeable to farmers' sons. Because farmers make up the majority of all occupations, it is not surprising to find their sons comprising the majority of entrants into all occupations such that 35% of professional, technical, and managerial sons came from farmer fathers and 45% of clerical workers also came from farming backgrounds. The more important data regarding the mobility of farmers' sons are on Table 10 where we can see that only 3% of farmers had sons who became professionals. Among sons of farm workers, only 1.5% made it to the professional-technical category compared to 24% of clerical worker's sons and 13% of sales workers. The most "open" occupations appear to be clerical and transport and communication work. Farmers and farm workers have the greatest tendency toward self-recruitment implying that it is more difficult for children from these occupational backgrounds to move out. Despite this obvious rigidity, the data suggest that upward as well as downward occupational intergenerational mobility takes place and the social structure is not so rigid as to render it hopelessly impermeable. The occurrence of these intergenerational mobilities serves as the spur for parents to provide higher education for their children.

The Filipino as an optimist - The glossy travel brochures on the Philippines project a country of beautiful, smiling, fun-loving people. Is this image inconsistent

with the reality? The first part of this paper presented a picture of absolute and relative poverty and therefore, one would think that depression rather than elation would be the dominant mood. On the contrary, the Filipino seems to be smitten with *optimistic fatalism* as far as the future goes. The past may not be good, the present even worse, but the future is bright. As a foreign observer who has witnessed one of our worst typhoons remarked: "It is amazing how people start nailing back their roofs even before the last wind has blown away. And within one week, even the trees have grown new leaves." As the well-known Filipino saying goes: "Bahala na" (God will take care). Apparently when we entrust ourselves to God, we do not expect him to do a poor job! But this is romanticism. Let us look at available data.

Table 12 gives us interesting insights into both the optimism and the fatalism of the Filipino. More than 80% of out-of-school youths and their parents believe that success is largely determined by fate. More than half of them also believe that poverty is chiefly a result of social and economic injustices. About as many do not agree that life is just a series of worries and difficulties and that the future is too uncertain to plan on anything worthwhile. But the optimism is reflected in the 80% who think that there is much hope in trying to improve their present condition in life. They also think that the government is really concerned with the welfare of people in the barrio. Furthermore there is a conviction that a young man of today can expect much of the future. Although they recognize the ugly realities of the present, they seem to have faith in the future.

A study in 1963 and 1968 of 370 heads of farm households in seven rice-growing villages showed that although they assessed their state of livelihood then as worse than or the same as their parents, their expectation of the future is better than the present although compared to other barrio people their livelihood was considered as being average (70). The same optimism was observed in three barrios in Gapan, Nueva Ecija, and two barrios in Hagonoy, Davao del Sur. Despite poor rice harvests from disease outbreaks, they expect higher income in the next 5 years (172, p. 283, 323).

Even cynical Manila seems to suffer from "unwarranted" optimism. In the Economic Development Foundation Survey (124, p. 1, 6), Manila consumers registered a curious ambivalence when asked to evaluate economic conditions for the next 6 months for the periods August 1975, May 1976, and October 1976 to May 1977. The findings of the surveys are as follows for the three periods reported:

	August 1975	May 1976	October 1976 to May 1977
Believe jobs will be even harder to find	75	62	63
Foresee no increase in family income	63	58	56
Predict prices will continue to increase	92	94	94
Notwithstanding the above assessments, they feel the economy will still be in good shape	73	79	79

These findings are quite intriguing because of the persistent optimism about the economy although three major indicators on jobs, family income, and prices are all negative.

For a larger glimpse of the Filipino as an optimist, Table 13 shows the IPC/PSSC national survey respondents' perceptions of present socioeconomic conditions in their communities as compared to those of 5 years ago and to those of 10 years hence. The present compared to the past was very discouraging with practically all 15 aspects of life being worse off. However, the present compared to 10 years hence revealed expectations of improvement in 9 items, status quo in 5, and the only condition that

is expected to really worsen is *prices*. There is optimism even in social equality of people. In Table 20, the mean ratings of the respondents' own life situation and of the national situation, past, *present*, and future, indicate that the present is evaluated better than the past but the future even more so. Furthermore, the future national situation is viewed even more positively than their own life situation. Urban respondents, contrary to what we might expect from the greater sophistication and cynicism attributed to them, had much higher ratings of both their own life situation and that of the nation.

For a nation-wide indication of farmers' assessments of their own and their barrio's socioeconomic conditions, past, present, and future, see Table 15. Consistent with earlier trends, farmers tend to think of their present as worse than their past (43%), but they forecast their future socioeconomic condition to be higher (43%) although almost one-third do not know what the future will bring. Again as found in other studies, farmers' assessment of their barrios' socioeconomic condition is regarded as higher whether comparing the present with the past or looking 5 years hence. Farmers have more positive evaluations of what has taken place or is going to happen in their village than in their own family's socioeconomic condition.

SUMMARY AND CONCLUSIONS

Because inequality manifested in a variety of ways is one of the most serious problems facing the country today and is a major *raison d'etre* for development programs especially those focusing on the rural sector, this chapter outlines the nature and magnitude of rural-urban differentials in the quality of life; identifies the other faces of inequality; and describes some sociocultural phenomena that seem to mitigate the inequities. Evidence from many different sources leads to some general observations.

Rural-urban differentials in quality of life

Despite the glamour of its metropolis, the Philippines is really a nation of villages with 70% of its population inhabiting rural and agricultural communities. The average income in Greater Manila is three times as high as Cagayan Valley, Eastern Visayas, and Bicol. Although there has been some narrowing of the urban-rural gap and some improvement toward more equal income distribution, in the country as a whole, between 1956 and 1971 urban incomes were still more than twice as high as rural incomes. However, we can say that within the *rural* sector, families have become *less equally poor* income-wise and in the *urban* areas, they have become a *bit more equally well-off*. However, 60% of families are low income and more than 80% of them are located in rural areas. In terms of what family income can buy, based on a food threshold and a total threshold, poverty has worsened. About one-half of the urban and three-quarters of the rural families can be considered as poor. With 60% of the total budget devoted to food, one can only expect a subsistence existence for the majority of the families.

Income distribution assumes different patterns in different regions. Some income pyramids are tall, while others are more flat suggesting situations where families are more unequal but relatively well-off while others are "more equal but poor." Greater Manila has an inverted pyramid with a higher proportion of high-income than middle and low-income families. Central Luzon has a large middle and the flattest pyramids are that of Surigao del Norte, Antique, Aklan, and Sorsogon.

Although definite improvements have occurred, the country still exhibits very substantial quantitative and qualitative urban-rural differences in access to social services like health, electricity, roads, telephone, schools, and the amenities of everyday life like running water, furniture, cooking fuel, etc. with the advantages accruing more to the urban sector. However, Metropolitan Manila, as the most privileged of all, stands out in distinct contrast to the rest of the country. In other words, our underdevelopment seems to be concentrated in our villages and our prosperity is lavished on Greater Manila. This urban-rural differential in quality of life appears to be reflected in the feeling of greater "unhappiness" among the rural population.

The other faces of inequality

Although inequality comes in many forms, some of which are by-products of efforts to remedy other inequalities, the problem is both absolute and relative poverty. There are large as well as small inequalities. In many ways, rural development is a process of

small inequalities occurring at different levels that results from attempts to narrow rural-urban, regional, and socioeconomic inequalities.

In a village where people are almost equally poor, any development that gets underway will inevitably create inequalities between the *poor and less poor* within the village because of differential capacity to respond to and benefit from development and partly due to the inability of any program to reach everyone at the same time. But any investment in that poor village is a step toward alleviating absolute poverty and reducing the urban-rural gap in quality of life.

In the process of implementing land reform, a number of "internal inequities" other than that of the "original" one between landlord and tenant emerge. There are income differentials not only *between leaseholders* and *share tenants* but also *among leaseholders* because of the differences in rentals. Among rice and corn landowners, some *are large* and *some* are *small* and it has been argued that the latter deserve proportionately greater compensation. Since the land-reform program affects only rice- and corn-tenanted areas, there is an *inequality of sacrifice* among *different types of landowners* with urban real-estate owners seeming to have made the least or no sacrifice at all. As a consequence of the land-reform program, we now have "*a new landowning class*" (former tenants and lessees) and the *landless* who have no access to land at all.

The traditional protagonists in labour relations are *labour* and *management* with labour representing mostly the better-off organized sector in urban areas. Clearly the unemployed are more disadvantaged and so are the lower-income unorganized, self-employed, farm, and unpaid family labour who make up the larger portion of our labour force.

Some likely mitigators

Given all the inequalities we are heir to, the question is how our society survives. In looking for factors that mitigate the existing circumstances, five socio-cultural phenomena have been identified as *likely* explanations.

Although the Philippines has great income inequalities, except for the Moro National Liberation Front Movement in Mindanao, the country does not have a caste system, nor does it suffer from the serious racial, ethnic, religious, or sex discrimination problems that other countries are afflicted with. We have *income inequality with a good measure of social equality*.

Some perceive virtue even in the old tenancy system because risks are shared and the landlord is a dependable source of subsistence.

When some people have more than others, they also tend to share more than others. This norm still seems to hold.

Despite the inequalities, the social structure is not so impermeable as to completely prevent upward mobility. There is evidence of intergenerational vertical occupational mobility, mostly via college education and also instances of downward movement from the top.

The Filipino seems to be smitten with *optimistic fatalism* as far as the future goes. The past may not be good, the present even worse, but the future is bright. He is also even more optimistic about his country and his community than about his own family's situation. Apparently, he tolerates the ugliness of today in anticipation of a brighter tomorrow.

CHAPTER II

PATTERNS OF EMPLOYMENT AND SOURCES OF INCOME: THE AGGREGATE PICTURE

A man's job, in many ways, determines his family's social status, income, life-style, level of living, not to mention his children's life chances. At the aggregate level, employment means more than a family's mode of survival and badge of its place in society. The salience of employment as a national as well as international issue is reflected in worldwide development concerns that focus on the trilogy of poverty, unemployment, and inequality. Because poverty is closely associated with the nature and level of employment and sources of income, an analysis of the employment situation is essential to an understanding of the poverty problem; the vitality and productivity of the economy; the existing social structure; the essence of rural-urban differences; and the prospects for absorbing new entrants into the labour force. In recent years, population pressure, among other things, has made it fashionable to advocate full employment, labour intensive technology, improved labour productivity, comprehensive employment strategy, and even the near perfect state of growth with equity, employment, and justice.

This chapter on employment and sources of income includes an aggregate picture of the following:

labour force characteristics; employment patterns; distribution of the employed; trends in employment; underemployment; and sources of income.

Labour force characteristics

The National Census and Statistics Office (NCSO) in its National Sample Survey of Households Bulletins defines *labour force* as follows:

"Labor force refers to the population 10 years old and over who are either *employed* or *unemployed* in accordance with the definitions set forth below. Included in the labor force are members of the armed forces who at the time of the interview, were living with their families in households:

(1) *Employed persons* include all those who were reported (a) *at work*. Those who were working for pay or profit, or without pay on the farm or business enterprise operated by a member of the same household related by blood, marriage or adoption; (b) *with a job but not at work*. Those who had a job or business but did not work because of temporary illness, vacation, strike, or other reasons. Also included are persons who were supposed to report for work or start the operation of a farm or business enterprise within 30 days from the date of the interview. If it is reported that an employed person worked 40 hours or more during the survey week, he is considered *working full-time*; otherwise, he is considered *working part time*.

Employed persons at work reported wanting additional work are considered under-employed - *visibly underemployed* if they are part time workers or *invisibly underemployed* if they are full-time workers.

(2) *Unemployed* persons include all those who were reported wanting and looking for work on a full time basis. The desire to work must be sincere and the person must be serious about working. Also included are persons reported wanting full time work but not looking for work because of the belief that no work was available or because of temporary illness, bad weather or other valid reasons. Unemployed persons who worked before for at least 2 consecutive weeks full time for pay or profit or without pay on family farm or enterprise is considered experienced unemployed or worked before; otherwise, he is considered *inexperienced unemployed* or never worked before.

Persons not in the labor force are persons reported as not at work and without jobs and not wanting work or wanting work but not looking for work for reasons other than those stated above are excluded from the labor force. These include housewives, students, disabled or retired persons and seasonal workers who were not working and not looking for work during the survey."

The size of the labour force relative to the total population 10-years-old and over for the period 1965-75 is presented in Table 16. The following observations may be made:

The Philippine working-age population 10-years-old and over increased from 20.2 million in 1965 to 29.8 million in 1975, only half of whom are in the labour force. Although 50% of the population is female, only one-third of the labour force as defined by the census is female. The labour force, which was 10.8 million in 1965, increased to 15 million in 1975, of which two-thirds is male and more than two-thirds is rural. However, the female component of the working-age population as well as of the labour force has become more urban. The rural female labour force declined from 64.5 to 60.5% and the percentage rural in the female population 10-years-old and over likewise declined from 66.6 to 63.7%. The male labour force on the other hand has become a bit more rural (from 71.6% in 1965 to 72.2% in 1975).

The increase in the working-age population (46.8%) exceeded the increase in the labour force (40.8%), but the increase in those not in the labour force was much greater (53.7%). The urban labour force (both sexes) increased more than the rural one (45.5 vs 38.8%), with urban female registering the greatest increase (59.4%) and rural female the lowest (34.4%). On the other hand, the rural portion of the male labour force increased more (40.7%) than the urban male portion (36.8%).

Although analysis of the employment situation often centres only on the members of the labour force, about one-half of the working-age population is not in the labour force (Table 17). Among these nonparticipants, almost 68% are female, and the majority of them are rural. Over the 10-year period, these nonparticipants have become less rural. In 1965, rural males comprised 63.5% of this group; in 1975 59.3%. Among rural females, the decline was from 67.8 to 65.3%.

Over a 10-year period, the increase in the working-age population was 46.8%, the labour force 40.8%, and the nonparticipants in the labour force 53.7% (Table 16). The fact that the number of nonparticipants increased much more than the labour force suggests an increasing burden on the productivity of the economically active component of the working-age population. The urban male nonparticipants in the labour force showed the greatest increase (81.8%). Apparently, while there is an influx of the female labour force to the city, more of the males who go there tend not to be economically active. The increase in size of the urban working-age population is much higher than the increase of the rural counterpart (56.5 vs 42.3%) making the problem of urban labour absorption a difficult one. However, we must not overlook the reality that 65.8% of the working-age population and 68.2% of the labour force are still in the rural sector. Unless livelihood opportunities in rural areas improve, much of the rural difficulties will quickly blossom into ugly urban-development and employment problems.

The labour force participation rate (LFPR) or the proportion of the population 10-years-old and over who belong to the labour force, both employed and unemployed, is only half of the total working-age population (Table 17). A male-female-rural-urban breakdown reveals very interesting patterns in LFPR:

As expected, males whether urban or rural have a higher LFPR than females, and rural males have a higher LFPR than urban males at all age levels. Rural men not only join the labour force at an earlier age but also tend to remain in it past age 65.

Urban females at ages 10-44 have a higher LFPR than rural women; however, at 45-65 and over, the trend is reversed. Rural women tend to stay longer in the labour force than their urban counterparts. Furthermore, although the age group 25-44 registered the highest LFPR for urban and rural males and for urban females, it was the 45-64 age group that reported the highest LFPR for the rural females. For all age groups, urban males had higher LFPR than rural females.

Since only half of the working-age population is in the labour force, we need to find out why the other half "do not want work." For males, more than three-quarters of those not in the labour force gave "going to school" as their reason (Table 18). One can

also infer that the majority of male nonparticipants are younger and are of school age. For girls, almost 60% mentioned housekeeping and 35% gave schooling as their reason for not "working." Taking care of household chores is, therefore, a major absorber of female labour-force potential. Schooling is another major factor that delays entry into the labour force. Therefore, if those in housekeeping joined the labour force and school enrolment were reduced, our employment problems would be considerably aggravated. Keeping adolescents in school, however, has corresponding costs to society and to the family. Furthermore, the tribe of "schoolers" and "housekeepers" is increasing in size much faster than the labour force. Thus, we must consider the possible enhancement of the productive potentials of "housekeepers" and the immediate and long-run payoff from schooling. Home economics courses in elementary and high schools, therefore, should not be regarded as frills for they continue to be directly relevant to everyday life. Considering that practically 70% of the rural nonparticipants are females and that the majority of them perform housekeeping roles, this is a significant matter that deserves as much attention as the labour force in development efforts.

Because of its many implications on family as well as occupational roles, marital status is a very relevant characteristic of the labour force. More males (about two-thirds) than females (less than half) in the labour force are married (Table 19). On the other hand, a higher proportion of the urban female labour force is single (53%) than married (38%). The situation is reversed in the rural areas where there are more married (53%) than never-married (38%) in the female labour force. What is of special interest here is the various ways in which the rural married female copes with the demands of her role as a member of the labour force, a wife, and a mother.

Comparing rural-urban, male-female unemployment rates from 1965 to 1974 (Table 20), male urban unemployment is almost three times as high as rural male unemployment. In general, unemployment is higher for both males and females in the urban areas. Male-female urban unemployment rates do not differ very much, but in the rural sector, unemployment of females is about twice as high as males. An encouraging note is the downward trend in the unemployment rates for both sexes and for both the urban and rural labour force: urban females 12.9-6.3%; rural females 13.4-5.4%; urban males 10.7-8.7%; and rural males 3.7-2.7%. If unemployment rates are used as a gauge, the Philippines has not done badly.

Class of work engaged in by employed persons 10-years-old and over, from 1962 to 1975, shows an increasing trend toward wage and salary workers (Table 21). However, the change is more significant for women with an increase from 36.2% wage and salary workers in 1962 to 45.9% in 1975. For men, the increase is less than for women (34-37.3%). In the case of the women, the increase in wage and salary employment was caused mainly by a near doubling of this class of workers employed in the government (13.6-22.2%) over a 13-year period. Female wage and salary workers in private business decreased from 86.4 to 77.8%, and at the same time the proportion of self-employed and unpaid family workers among females also declined. In general, wage and salary workers form a higher proportion of the female (45.9%) than the male labour force (37.3%). Almost half of the males (43.7%) are self-employed, but only 23.7% of the females belong to this category. However, there are more unpaid family workers among females (30.4%) than males (19.0%). As an over-all trend for both sexes, within 13 years, self-employed workers were reduced from 40.3 to 37.0% while wage and salary workers went up from 34.8 to 40.2%. Thus, there are now slightly more wage and salary (40.2%) than self-employed workers (37.0%) or unpaid family workers (22.8%). In total, however, the proportion of wage and salary workers is still less than the combined self-employed and unpaid family workers.

Employment patterns by major occupation and major industry groups

Because Metropolitan Manila is a bustling hub of industrial, commercial, professional, cultural, and tourist activities, one is likely to get the impression that the Philippines is on its way out of agriculture and well into the ranks of the industrialized nations. However, an examination of employment trends from 1956 to 1975 conveys a different message (Table 22).

Over a 19-year period, for both sexes the occupational category, farmers, farm laborers, etc. has declined only by 5.5% (58.8-53.3%). The occupations that have increased in importance are in professional and technical, clerical and office, sales, transport, and service. Craftsmen and factory workers have actually been reduced from 13.9 to 12.1%.

Male-female comparisons show several contrasting trends. The reduction in proportion of employed persons engaged in farm work is more marked for females (41.8-34.4%) than for males (68.2-62.7%). There are more females than males in the professional and technical category and this has increased considerably for females (3.9-9.9%) while for males it has not changed much (2.2-3.1%). Although the mass media has projected quite a few women who are proprietors, managers, administrators, and officials and has given the impression that women are moving rapidly into these positions, the data tell us otherwise. The percentage of women in this category has fallen from 7.1% in 1956 to 0.6% in 1975, but a drop has also been observed for males (3.2-1.3%). We cannot offer an explanation for this change except that perhaps the definition of proprietor, manager, administrator, and official has been changed, or that management and administration has become more centralized, so that fewer people are needed, i.e. multiple administrative and managerial positions requiring only one person have become more common.

Factory and crafts work has failed to increase its absorptive capacity. For males, there was a drop from 13.9 to 12.1%; for females, the proportion was almost halved from 22 to 12.5%. An increase in female labour force absorption has taken place in sales, service, clerical and office, and professional and technical jobs. The employment picture has changed very little for the male labour force in 19 years; Filipino males remain mostly in farm work.

Previous analyses have revealed substantial rural-urban differences, and contrasts are also evident in the urban and rural employment patterns for the period 1965-74 (Tables 23 and 24). One-third of urban females are in service occupations, about one-quarter in sales, almost 16% in professional-technical, and 12% in craftsmen and production-process work. The proportion of women in professional and technical occupations is more than three times (15.7%) higher in the urban than in the rural areas (4.6%). Another important revelation that negates popular notions and impressions is that instead of a reduced labour force in farming, in the rural areas, there has been an upward trend for females in this occupation (53.6% in 1965 to 59.7% in 1974). For rural males, the proportion in farming has remained practically stationary (81.9%).

Data on employment by major industry group show that urban women are employed mostly in four industry groups: commerce 27.1%; domestic service 25%; government, community, business, and recreational services 21.3%; and manufacturing 14.7% (Table 25). For rural women, 59.8% are in agriculture; 14.9% are in manufacturing; and 13.7% are in commerce (Table 26). Agriculture has increased in importance from 53.6% in 1965 to 59.8% in 1974. Manufacturing has fallen from 19.4 to 14.9% and commerce from 15.3 to 13.7%. Employment for rural males, on the other hand, has remained at about 82% in agriculture over the 9-year period. Urban males seem to have more varied employment opportunities than either urban females or rural males (21% in commerce; 20% in manufacturing; 16% in government, business, and recreational services; 15% in agriculture; 10% in transport, storage, and communication; and 8% in construction). The increases in urban labour force absorption have occurred in commerce and construction (16.1-20.9% and 7.2-9.5%, respectively); whereas, employment in manufacturing for urban males has hardly changed (18.8-19.9%). It is essential at this point to clarify that much of what is classified as *employment in commerce* is nothing much more than street or market peddling, hawking, and vending and little of it is really sophisticated, high-finance trading activities.

In general, we can say that from 1965 to 1974, the major changes in employment pattern have been the *deagrarianization* of urban employment, the growing importance of sales work for both sexes and of clerical, professional and technical work for females, and the reduction of factory work for females. In short, the changes have occurred mostly in the urban sector with little, if any, change in the rural areas. Perhaps it is precisely this lack of dynamism in the latter that has created the rural to urban pressures on the urban sector to generate "petty occupations" such as peddling, etc.

Distribution of employed persons to urban and rural areas

Another way of assessing employment trends is to examine where the employed persons are in terms of rural or urban location. Although more than 65% of the working-age population and of the labour force are rural, only farming and agriculture are found almost completely (95%) in the rural areas (Table 27). The only other industry groups that are more rural than urban are mining and quarrying (59%) and manufacturing (52.6%). However, from 1965 to 1975 a number of industry and occupational groups have become more urban-based and less rural: mining and quarrying 66.7-59.3% rural; construction 55-47%;

commerce 48-39%; domestic services 30-25%; personal services other than domestic 31-28%; administrative and managerial work 50.2-19%; clerical work 25-18%; sales work 49-43%; and service 32-29%. Despite all that has been said about programs to decentralize industry, rural employment in manufacturing has barely changed (52.1-52.6%). Judging from the fact that the proportion of employed persons in manufacturing was already more than 50% rural even in 1965, perhaps further significant dispersal of manufacturing employment to the rural sector is not likely to occur except in the very long run. What needs to be emphasized is that relative to other occupation and industry groups, manufacturing (crafts and production processing) has not really improved in its labour-absorbing capacity. Its share of the employment picture has actually declined.

The encouraging developments in employment have occurred in the increasing proportion of employed persons located in the rural areas for the following occupation and industry groups: professional and technical workers 29.3-33.0%; transportation, storage, and communication 37.8-45.5%; electricity, gas, water, and sanitary services less than 05-21.7%; manual workers and labourers 42-49%; government, community, business, and recreational services 32.6-33.2%. The nature of these occupations and industry groups implies that more development services have flown to the rural areas. But, considering that almost 70% of our total population is rural, there is much that remains to be done. For example, there is no doubt that the implementation of many rural development programs is beset with personnel problems. As we have just seen, only one-third of the professional and technical workers in the country are based in rural areas. The situation regarding government, community, and other services is similar. The most positive developments are in transport, communication, and public utilities, which directly affect the quality of life in our villages.

Trends in agriculture and nonagriculture employment

From Table 28, which presents a comparative analysis of agriculture and non-agriculture employment from 1965 to 1975, the following may be gleaned:

(1) The proportion engaged in agriculture declined by only 3% and the rate of increase in nonagriculture is much higher than for agriculture employment (54 vs. 36%).

(2) Almost two-third of the males are in agriculture, but about the same proportion of females are in nonagriculture.

(3) The increase in urban employment is higher than for the rural sector (50.3 vs. 41%) but the greatest increase in employment has occurred among urban females (68.5%).

(4) The difference in male-female employment is more marked in the rural than in the urban sector. Whereas, almost one-half of rural females are in nonagriculture, less than 20% of rural males are in the same type of occupation (about 81% of rural males are still in agriculture). For both sexes, only 27% of rural employment is nonagriculture and this percentage has not changed at all from 1965 suggesting that there is little economic activity outside agriculture and that the situation has remained almost stationary for 10 years.

(5) A rural-urban, male-female, agriculture-nonagriculture comparison of growth in number of employed persons shows that the highest rate of increase has taken place among urban females in nonagriculture (76.8%) and the slowest rate has occurred among rural females in nonagriculture (34.3%). Again we have further corroborative evidence on the swelling of the female urban labour force and the relatively "sluggish" rural female nonagriculture force. We should, however, be reminded once more that although nonagriculture employment is growing rapidly, this does not necessarily mean industrialization because manufacturing has not really blossomed in either the urban or rural sectors. Furthermore, rural males remain very largely in agricultural employment.

The structure of employment at the national level provides an abbreviated, rather gross, description of only a little more than half of our total labour force in agriculture, and, therefore, we get a misleading image of what is happening in the country. A further breakdown of the data offers a more accurate picture of regional differences (Table 29). The most agricultural regions as far as employment is concerned are: Cagayan Valley 75.7%; Southern Mindanao 72.8%; and Ilocos 72.3%. The least agricultural are Manila and Suburbs 0.9%; Central Luzon 39.8%; and Southern Luzon 42.7%. Conversely, they are also the three regions with the highest nonagriculture employment. Three regions have become more, instead of less agricultural from 1968 to 1974: Ilocos 64-72%; Eastern Visayas 52-61%; and Northern Mindanao 59-73%.

In general, unemployment has gone down from 7.8% in 1968 to 4.8% in 1974, but in two regions, Ilocos and Cagayan, unemployment has gone up during this same period. Another very pertinent observation is the tendency for the less agricultural regions to have higher unemployment as represented by Manila and Suburbs (12.1%), Central Luzon (7.0%), and Southern Luzon (6.1%). The only exceptions to this trend are Ilocos and Cagayan, which are both highly agricultural and also have relatively high unemployment rates (4.7 and 5.0%, respectively).

An examination of farmers, farm labourers, etc. as an occupational category provides us with some additional insights into the nature of employment in this occupation (Table 30). The two most salient findings are: a very high proportion of females in farm work are unpaid family workers (71%); and about 60% of the males are self-employed. Although Table 21 showed that for the aggregate employment situation, there had been a decline in unpaid family workers, and an increase in wage and salary employment among farm workers, this is not the case. In fact, a slight increase instead of a decrease in unpaid family workers in farming has been observed (Table 30). Furthermore of all occupations, farming is the one that reports the highest percentage of unpaid family workers. Considering that nearly three-quarters of women engaged in farming belong to this unpaid class of worker, it is not surprising that rural females prefer to migrate to the city to join the ranks of domestic helpers. The salary might be low and working conditions exploitative but they at least get paid in cash; part of which is usually remitted to their families in the village.

Underemployment among the employed

The official census definition defines full-time work as 40 h or more a week. On this basis, those employed in agriculture have the lowest proportion of all major industry groups who are fully employed (70%); followed by manufacturing (79%); commerce (79%); construction (84%); and personal services (86%). Underemployment has declined for manufacturing, commerce, and personal services. In agriculture, underemployment worsened in 1972 but picked up again by 1974 (Table 31). The highest proportions of full-time employment were reported in the service sector engaged in public utility, government, community, etc. and in domestic services.

Among the major occupation groups, underemployment is least for clerical workers (98%), professional-technical workers (95%), and administrative-managerial workers (94%). Farm workers, sales workers, and craftsmen production-process workers are the most underemployed (Table 32). In farming and mining, the incidence of underemployment rose in 1972 but declined to the 1965 level by 1974. On the whole, the proportion of workers who are employed full-time improved from 73.4% in 1965 to 77% in 1975. Hence, even by such a crude and unsatisfactory measure as number of hours worked, the employment picture does not seem to have deteriorated over the past 10 years. On the contrary, the situation has apparently improved.

Further evidence of what might be considered as the "brightening spot" in employment can be seen in Table 33. The number of people wanting additional work has been reduced to about one-half from 1965 to 1975 (25.4-13.6%). Even among those who worked less than 40 hours a week, there has been a considerable drop in the proportion wanting additional work (38.5-25.9%). This desire was expressed by more males than females; more in nonagriculture than agriculture; and as expected, more by those who worked under 40 hours a week.

Despite the "encouraging" trends from the aggregate census employment figure, it is difficult to believe that underemployment has actually declined, especially if we consider population growth and the very evident poverty one encounters in the countryside. Luning, in a 1976 study of rural employment in West Visayas (217) questions the adequacy of "reference week" as a basis for assessing employment. Using 1975 as a reference year he found that:

"Full-time employed refers virtually to all non-agricultural jobs which guarantee continuity regardless of the season. It stands for approximately 12 months of employment. *Part-time* refers to those working a part of the year and who do not wish to work more. The part-time aspect should be viewed as voluntary. This situation is found frequently amongst farmer-operators who consider they need some leisure in the periods between the seasonal labor strains. The *unemployed* are those not working and not in the least looking for work. They are mostly found in the younger generation who have had some schooling (including high school) and are now passing their time loafing around in the

barrio prior to marriage and settling down to work for the first time. *Underemployed* are divided into two categories, *perceptibly* underemployed, i.e. actively looking for work last year and *unperceptibly* underemployed, i.e. those who like to have some more work but are not looking for it."

Based on these operational definitions, Luning found the following distribution of workers in the labour force according to employment status (278 households interviewed in 16 barrios of Capiz, Iloilo, Antique, Aklan, Negros Occidental, and Guimaras): full-time employed 11%; part-time employed 17.5%; unemployed 3.0%; perceptibly underemployed 24.0%; and nonperceptibly underemployed 43%. The total underemployed is 67% and the estimated average man-months gainfully employed per year is 6.5 months.

Although this indicates a much higher degree of rural underemployment than what the labour force surveys indicate, in the case of farmers and agricultural labourers, these figures are also very likely reflections of *energy constraints* and *low nutritional levels*, which could in many ways be responsible for some of the underemployment. As Luning reports on the health situation in the villages studies:

"Many cases were observed and reported of malnutrition, incidence of ulcers, kidney disease while tuberculosis is endemic. Many parents had lost children at a tender age. The principal staple food is rice, consumed only twice a day and often replaced by rice gruel, boiled bananas, rice mixed with corn, and rootcrops. Meat is seldom eaten, occasionally fish is bought, often dried or salted. Consumption of vegetables is irregular and not practiced by all households.

Health conditions affect labor input often quite substantially. In many instances, the response to questions concerning willingness to do additional work were: "If health permits; I cannot tackle it; my body hurts; I cannot bear the heat; my back is hurting; I am too weak; my head is aching." In several cases people reported that they had to rest for a few months after the toils of the peak season. In view of these reactions, increased labor efforts can be forthcoming only with assured larger food intakes, particularly of proteins, minerals, and vitamins."

For agricultural and other physically demanding occupations, time spent on the job and even income earned are inadequate measures of underemployment. If energy expended in agricultural work is taken into account in the light of calorie intake, perhaps our statistics on underemployment might be quite different. Perhaps 6.5 months a year is the maximum amount of work they can physically afford. In other words, if there were no off-seasons during which the body could "recuperate," the health problem might be much more serious. The question we can pose at the point is: "Given the high energy requirements but low income from farming, what constitutes full-time employment in agricultural work?" To apply the criterion of a 40-h week to agricultural, white-collar, and other nonagricultural occupations is obviously not very realistic.

Sources of income (77)

For many reasons, the concepts of employment, unemployment, and underemployment do not accurately portray the Filipinos' means of livelihood. For example, white-collar workers such as professionals and clerical workers who are usually wage and salary workers paid on a daily or monthly basis using 8 hours as a standard working day, are almost always regarded as fully-employed even if they may not be productively occupied or are actually *idle* during those official working hours. It is also entirely possible to have someone who is fully-employed time-wise; underemployed, work-wise; but overpaid salary-wise. Just as it is possible to have someone who is overworked, underpaid, and underemployed. On the other hand, a government employee is always regarded as fully employed regardless of the work he puts in. Another man may be unemployed but not idle and still another can be unemployed but rich. Housewives are fully occupied and overworked: 50% of them work more than 8 hours a day, 29 days or more a month; they render service to the family day and night, and yet officially, they are *not economically active*. They are not members of the labour force. On the other hand, even hospitality girls are counted as part of the service occupations (68).

Furthermore, in labour-force surveys, only the major occupation is accounted for and the unit of analysis is the individual, rather than the household or the family. Since the Philippine employment situation is characterized not only by multiple bread-winners but also by multiple sources of income, labour-force data provide only a partial picture of the livelihood situation. We need to examine family income sources including

those not directly coming from employment (Table 34). In 1971, more than 77% of Metro Manila, 61% of families in other urban areas, and only 33% of rural families received incomes from salaries and wages. As expected, the more urban the area, the higher the proportion of families deriving main income from wages and salaries and the lower the proportion deriving income from farming and in general, from entrepreneurial activities. The percentage of total families receiving income in wages and salaries increased from 36.0% in 1961, to 38.9% in 1965, to 43.0% in 1971. Conversely, those deriving income from entrepreneurial activities decreased from 58.0 to 56.1 to 51.0%. While the number of Metro Manila families engaged in manufacturing increased from 1.9 to 2.4 to 2.7%, in the rural areas, the corresponding figures are 1.6% in 1961, 3.8% in 1965, and then a drop to 2.7% in 1971. For all families, the proportion whose main source of income is manufacturing increased from 2.0 to 3.7% from 1961 to 1965 but dropped to 3.1% in 1971. Regarding sources of income other than agricultural employment and entrepreneurial activities, two items are of special interest. These are income from *landowners' share of crops, livestock, and poultry raised by others and income from gifts, support, assistance, and relief*. As of 1971, about 1.7% (10 790) of families depended on landowners' share of crops, etc. for their main income, compared with 1.6% in 1961, and more of them are located in the rural than in the urban areas. The proportion of families depending mainly on gifts, support, assistance, and relief is much higher than those depending on landowners' share and this increased from 2.2% in 1961 to 2.5% in 1971.

As indicated earlier, Filipino families have more than one source of livelihood (Table 35). Although in 1971 only 34.4% of total families depended on farming as a main source of income (Table 34), almost 58% reported farming as one source of family income. The corresponding proportions for rural families are 47 and 74%. Even more dramatic than farming as an additional source of family income is *fishing*. While only 4.3% of families have fishing as a main source, about 54.0% mentioned it as a source. Another significant observation is that almost 30% of families produced articles for their own use, but no family cited it as a main source of income. But, this type of production is definitely on its way out as evidenced by the decline in the proportion of families engaged in this activity from 54% in 1961, to 42% in 1965, to 30% in 1971. Farming and fishing are partial means of livelihood for more than half of our families, but fishing is a main source for only a few. Indicative of the Filipino's practice of extending assistance beyond one's own household, is the 28% of families whose incomes come partly from gifts, support, assistance, and relief.

If the total percentage of families deriving income from specified sources could be used as an index of *diversity* or *multipleness* of income sources, then we could say that the more rural and agricultural the place, the greater the diversity of income sources (Table 36). This relationship may be attributed to two factors: greater underemployment and lower income from agriculture, hence the necessity of seeking income and employment from other sources. From 1961 to 1971, there has been a decrease in the degree of income source diversity because there has been a decline in dependence on agriculture as a source of income and an increase in importance of wages and salaries in nonagriculture. Although in 1971 about 50% of the employed, reckoned as *individual* members of the labour force, were in farming, only 34% depended on it as a main source of family income. In other words, farming affects more families as a partial rather than as a main source of livelihood. The low income and natural risks involved in farming exert pressure on farm families to seek other ways to augment family income.

The regional picture of income sources reinforces the observation of greater diversity in predominantly agricultural regions (Table 36). Next to Region I (Manila and Suburbs), Region IV (Central Luzon) and Region V (Southern Luzon) have the lowest indices of diversity and they are also the most urbanized of the 10 regions. The diversity of income sources has also declined from 1965 to 1971 for all regions except Region II (Ilocos) and Region III (Cagayan Valley) where there have been marked increases in diversity. The Ilocanos registered an increase in the number of families reporting sources of income from trading, manufacturing, other enterprises, transport, production of articles from home use, rent from nonagricultural land, rental value of owner-occupied houses, interests and dividends, pension and retirement benefits, gifts, support, etc., and even net winnings from gambling and sweepstakes. The Ilocanos also reported the second highest percentage of families receiving income from gifts, support, assistance, etc. The highest was Region I. In 1965 Ilocos reported the highest percentage of families deriving income from landowner's share of crops etc. (23.2%), but this decreased to 17.4% in 1971. On the other hand, Cagayan Valley reported only 12.8% of the families

deriving income from crop share in 1961; in 1971, however, this went up to 25.9%, the highest of the 10 regions for that year. The other increase for Cagayan Valley came from trading, production of articles for home use, pension and retirement benefits, gifts, assistance, support, etc., and net winnings from gambling and sweepstakes. Regions II and III are the only two regions that also increased in percentage of families reporting both agricultural and nonagricultural wages and salaries from 1965 to 1971. In other words, these two regions, but particularly the Ilocos Region, seem to be able to continue deriving income from a variety of sources despite the increase of families receiving wages and salaries. One wonders if this is more evidence supporting the stereotype of the Ilocano as hard-working and entrepreneurial or whether it is an indication of low income levels in Ilocos and Cagayan that exert pressure on families to seek other income sources. In general, for the 10 regions the percentage of families receiving gifts, support, assistance, etc. ranges from 39.7% in Region I (Manila) to 10.5% in Region X (Southern Mindanao). Five regions reported 30% or more; three regions more than 20%; and two regions more than 10%. The role of this "assistance" as a source of income cannot be ignored. Except for Manila and Suburbs where the assistance has a greater probability of coming from "relief," the assistance reported in the nine other regions could be interpreted as "assistance from other family members or relatives."

SUMMARY AND CONCLUSIONS

Because much of what we regard as poverty is closely associated with the nature and level of employment and sources of income, an analysis of the employment situation is essential to an understanding of the poverty problem; the state of the economy; the existing social structure; and the essence of urban-rural differences. From this chapter we are able to draw an aggregate picture of the following: labour-force characteristics; employment patterns by major occupation and industry and by rural-urban distribution; trends in agriculture and nonagriculture employment; underemployment; and sources of income.

Labour-force characteristics

Of the Philippine working-age population, only one-half are in the labour force and, as of 1975, this labour force of 15 million is two-thirds male and more than two-thirds rural. Over a 10-year period 1965-1975, the working-age population increased in size at a much higher rate than the labour force, but the increase in size of those not in the labour force was much greater. Among these nonparticipants in the labour force more than two-thirds are female, the majority of whom are rural. The urban labour force for both sexes increased faster than the rural, but the female urban registered the highest and the female rural the lowest increase. On the other hand, the male urban nonparticipants in the labour force showed the greatest increase in size. All of these suggest that although there is an influx of the female labour force to the city, more of the males who are there tend not to be economically active. However, we must emphasize that two-thirds of the working-age population and more than two-thirds of the labour force are still in the rural areas.

Males, whether urban or rural, have higher labour-force participation rates (LFPR) than females, and rural males have higher rates than urban males at all age levels. Urban females have higher LFPR than rural women but the latter tend to stay longer in the labour force.

Of the 50% working-age population who are not in the labour force, more than three-quarters of the males gave "going to school" as their reason for not wanting work. For the females, almost two-thirds mentioned housekeeping and one-third gave schooling as their reason. Taking care of household chores is, therefore, a major absorber of female labour-force potentials. It also seems that schooling is another major factor that delays entry into the labour force. Therefore, if those in housekeeping joined the labour force and if school enrolment were to be reduced, employment problems would be considerably aggravated.

Whether urban or rural, more of the males than the females in the labour force are married and more of the urban than the rural females are never-married. This means that

a higher proportion of the rural female labour force combines multiple roles of working wife and mother.

From 1965 to 1974, there has been a downward trend in the unemployment rates for both sexes and for both the urban and rural labour force. However, in the rural sector, unemployment for females is about twice as much as for the males.

As an overall trend for both sexes, wage and salary workers have increased while self-employed and unpaid family workers have declined slightly, but the situation is such that more than one-fifth of the labour force is still unpaid family workers and almost 40% is self-employed. There are more than one-and-one-half times more unpaid family workers among females than among males, but more females than males in general find themselves in wage and salary employment. More males are self-employed. The major contributor to increases in female wage and salary employment is the near doubling of their participation in government employment.

Employment patterns by major occupation and industry

Over the period 1956-75, the occupational category (farmers, farm labourers, fishermen, hunters, lumbermen and related workers) for both sexes has only declined from 58.8-53.3%. Crafts and factory employment declined for both sexes and was almost halved for women. An increase in female labour force absorption has taken place in sales, service, clerical, office work, and in professional and technical jobs. The employment picture has changed very little for the male labour force. Through 19 years, Filipino males have remained mostly in farm work. In short, changes in employment patterns have occurred mostly in the urban sector and little, if any, in the rural areas. For rural women, agriculture has increased rather than declined in importance and for rural males, more than 80% are still in agriculture.

Rural-urban distribution of employed persons

Another way of assessing employment trends is to examine where the employed persons are in terms of rural or urban location. Although more than 65% of the working-age population and of the labour force are rural, agriculture is the only industry that is found almost completely in the rural areas. The encouraging developments in employment have occurred in the increasing proportion of employed persons located in the rural areas for professional and technical workers; transport and communication; electricity, gas, water, manual workers; and government and community services. The nature of these occupations implies that more development services have gone to the rural areas although much more remains to be redistributed. Only one-third of the professional and technical workers and of government, community and other service workers are rural-based, hence the implementation of many rural-development programs is beset by personnel problems. The most positive developments are in transport, communication, and public utilities, which directly affect the material quality of life in our villages.

Trends in agriculture and nonagriculture employment

From 1965 to 1975, the proportion engaged in agriculture declined by 3%, which means that more than one-half of the labour force is still in agriculture, but the rate of increase in nonagriculture employment is much higher than for agriculture. A rural-urban, male-female, agriculture-nonagriculture comparison of growth in employed persons shows that the highest rate of increase has taken place among urban females in non-agriculture and the slowest rate among rural females in nonagriculture. It is probably the "sluggish" development in rural female nonagriculture employment that contributes to the swelling of the female urban labour force. However, nonagriculture employment does not necessarily mean industrialization. For urban women, many of whom are probably from the rural areas, the most significant occupations are commerce (peddling, hawking, vending) and domestic service.

In terms of regional employment patterns, seven out of the ten regions are still 60-75% agricultural with Manila, Central, and Southern Luzon as the only places exhibiting more nonagriculture than agriculture employment. Another significant finding is that more than one-third of the agricultural labour force (both sexes) are unpaid family workers. Among rural women in farming, more than 70% of them still belong to this category.

Underemployment among the employed

Using the official census definition of full-time work as at least 40 hours per week, agriculture workers have the highest underemployment. Occupations that require regular office working hours reported the highest degree of full employment. Using this crude measure, underemployment appears to have declined. Furthermore, the proportion of employed wanting additional work has also been reduced from 1965 to 1975. Although the aggregate census figures show these encouraging trends, a recent village-level study reveals a much higher degree of rural underemployment with the average man-months gainfully employed per year estimated at 6.5 months. There are those who work a part of the year and do not wish to work more. Many farmers need some "leisure" (rest) in the periods between the seasonal labour strains. Rural underemployment, therefore, can be a reflection of energy constraints and low nutritional levels. To apply the same 40-hour week criterion for full employment to agriculture, nonagriculture, and white-collar jobs is not realistic. Perhaps in farming, 6.5 months a year is the only amount of work they can do in the light of the strenuous work and their low calorie intake.

Sources of income

Because labour-force surveys provide data only about the major occupation of the individual, they give us only a partial picture of the situation. The Filipino family survives not only by multiple breadwinners but also by multiple sources of income. As expected, the more urban the area the higher the proportion of families deriving main income from wages and salaries and the lower the proportion deriving income from farming and in general from entrepreneurial activities. From 1961 to 1971, the proportion of total families dependent mainly on wages and salaries increased. Although only about one-third of the families depend on farming as their main source of family income, farming and fishing are partial means of livelihood for more than one-half of all families. Indicative of the Filipino's practice of extending assistance beyond one's own household, almost 30% of families derive their income partly from gifts, support, assistance, and relief. Less than 2% of the families depend mainly, and less than 9% partially, on landowners' share of crops, livestock, and poultry raised by others for their income. This suggests that there are very few landlord families who derive income mainly or even partially from agricultural land.

With respect to diversity of income sources, the more rural and agricultural the place, the greater the diversity of income sources. This relationship may be attributed to greater underemployment and lower income from agriculture, hence the necessity of seeking income and employment from other sources. Farming affects more families as a partial rather than as a main source of livelihood. All regions except Cagayan Valley and Ilocos fitted the pattern of declining diversity of income sources with increasing wage and salary employment. These two regions, but particularly Ilocos, increased in diversity of family income sources despite the upsurge of wage and salary employment. One wonders if this is additional evidence supporting the stereotype of the Ilocano as hardworking and entrepreneurial or whether it is an indication of low income levels in these two regions exerting pressure on families to seek more income sources.

CHAPTER III

OF FARMS AND FARMERS: WHO IS THE FILIPINO FARMER?

Because the Philippines is basically an agricultural economy, the answers to many of our development problems are sought in the agricultural sector. The farmer, who is often referred to as "the backbone of the nation" is always either explicitly or implicitly assumed as the target of our development efforts. But who is the Filipino farmer, the intended beneficiary of policies and programs purportedly designed to influence productivity, employment, and greater equity in his favour?

Toward this end of knowing more and understanding better our farms and farmers beyond the level of emotion, passion, rhetoric, and stereotypes, this chapter: describes the general farm situation with respect to agricultural land utilization, employment, farm size, and land tenure; outlines the characteristics of farmers as a general occupational category; and portrays specific farming groups.

The General Farm Situation

Agricultural land utilization and employment

A nation's economy, the rhythm of life and the life-style of its people, their capacity to produce food and earn a living, their relative wealth or poverty, and even the colour and shape of the countryside are determined in many ways by patterns of agricultural land utilization. The type of farmers we have, of course, depends on the kinds of crops we grow (Table 37). In terms of crop area harvested, more than twice as much area is devoted to food crops than to commercial crops. Rice and corn lead the food crops, and coconut dominates the commercial crops, followed by surgarcane. Over the period 1966-73, the rice and corn areas remained constant at 3.1 and 2.2 million hectares, respectively. The areas devoted to vegetables and root crops also remained the same. Fruits registered only a slight increase in hectarage, while citrus and cacao dropped because disease problems wiped out a substantial number of trees. The largest expansion in hectarage occurred in surgarcane from 315 000 in 1966 to 455 000 in 1973. This represents a 44% increase. In the case of coconut, there was a 32% increase from 1.6 to 2.1 million hectares during this period. The most noticeable decline was observed for abaca hectarage, which went down from 198 000 in 1966 to 145 000 in 1972 and then recovered to 163 000 hectares in 1973. The variations in production of these crops are very much dictated by the international market because they are mainly export products. Thus we speak of a "sugar boom" or a "sugar slump." Our coconut competes not only with other coconut growing countries but with other oil sources such as palm oil. The abaca market lost out to nylon and other synthetics, but recently, handicraft and other uses appear to have contributed to its slight recovery. These trends illustrate how the international market and international politics touch the lives of people engaged in the production of these crops. The livelihood of a poor sugar-worker's family in one little corner of a sugar plantation may be adversely or positively affected by the foreign policy of the United States toward Cuba. A break in diplomatic ties between these two countries has favored the Philippines in terms of an increased sugar quota. In 1976, however, a drop in sugar prices abroad created a grim situation for the whole industry, and dire consequences for sugar workers.

Another characteristic of crop production is the tendency toward *localization* or *specialization* of certain crops in certain regions. Commercial crops seem to be more localized, with tobacco and sugar registering the highest degree of localization. These are concentrated in the Ilocos and Western Visayas, respectively. Corn is third in rank with Central Visayas, three Mindanao regions, and the Cagayan Valley leading in corn production. Fruit production such as bananas and pineapples is most predominant in

Northeastern Mindanao. Coconut concentration is practically nil in the Ilocos, Cagayan Valley, and Central Luzon. However, Mindanao, Southern Luzon, and Bicol have more coconuts. Rice production tends to be more dispersed in different parts of the country although Central Luzon, Western Visayas, and Cagayan Valley exhibit higher localization. Root crops, on the other hand, are concentrated in regions with low development indices, such as Eastern Visayas, Mindanao, and Cagayan Valley. Central Luzon, Southern Luzon, and Western Visayas showed very little concentration in root crops (325). This information on localization and specialization gives us a rough indication as to where we would most likely find the different types of farmers.

These land-utilization patterns have their corresponding effects on farm employment as reflected in Table 38. More than three-quarters of total employment in crop farms is in rice and corn production. This is followed by coconut workers (9%) and sugarcane farming that, although it attracts a great deal of attention, accounts for only 5% of employment in crop production. These employment statistics are very important reference points when assessing priority targets and beneficiaries in the allocation of resources for development. Furthermore, different types of crops involve different modes of organizing the production process and different systems of social relationships, especially where those who work the land are not the owners of the land. It also makes a difference whether the crop grown is for food or for commercial uses; for export or for domestic consumption.

Farm size

Because of the current preoccupation with the need to promote the welfare of the small farmer, many agricultural and rural-development programs are purportedly being tailored with the small farmer as their special target. However, in designing and planning such programs, it is necessary to define "small farmer," and for this, farm size is an important but a rather complicated component (Tables 39 and 40). If we examine the proportion of farms below 3 ha, we find that 61% of the 2.35 million Philippine farms belong to this category. The majority of Filipino farmers can therefore be regarded as small, but some crop farmers are smaller than others. For example, 80% of tobacco farmers, 69% of rice farmers, 65% of corn farmers, and 79% of pineapple growers are operating farms of less than 3 ha. On the other hand, among sugarcane and coconut farmers, only about 44% of them belong to this size category. But, even coconut and sugarcane farmers can be regarded as small farmers if we use the percentage of such farms that are below 5 ha (70% for both crops). The proportion of farms belonging to different size categories can, therefore, be misleading.

Although only 15% of the farms are 5 ha or larger, 52% of the total area is operated by farms of 5 ha or more (Table 40). Thus, although the majority of the farms are "small," the small number of "large" farms occupy a sizeable portion of total farm land. To illustrate: 70% of the pineapple farms are less than 3 ha, but about 93% of the pineapple farmland is operated in units of 50 ha or more; for sugarcane farms, about 44% are less than 3 ha, but 66% of the sugar area is in 50 ha or larger farms; more than 82% of banana farms are less than 5 ha, but 47% of the banana lands are in farms of 10 ha and above, with 24% being more than 50 ha. These data reflect the fact that these crops are grown mostly in plantations (in Mindanao for pineapple and bananas and Western Visayas for sugarcane).

In the case of rice farms, 90% are less than 5 ha, but 35% of rice lands are cultivated in farms of 5 ha or more. For corn farms, 87% are less than 5 ha, but 42% of corn lands are in farms of 5 ha or more. Tables 39 and 40 demonstrate that although three-quarters of the Philippine farms are less than 5 ha, 52% of the total farm area is occupied by farms larger than 5 hectares. We therefore have a majority of small farms but some concentration of area in larger farms. This concentration is more prevalent in pineapple, banana, and sugarcane plantations and in cattle ranches and hog farms. Tobacco and vegetable farms are smallest of all; whereas, root crop, corn, and rice farms are intermediate in size.

Land tenure

Because operation, cultivation, or management of a farm does not necessarily mean ownership of the farm, and because what accrues to the farmer from his productive efforts depends on his tenure status, we want to know the farmer's status vis-a-vis the farm he operates. Furthermore, because the Philippine government has a land-reform

policy designed to enable farmers to own the land they till, information about the tenure status of farm operators is crucial in determining the scope of land reform. The definitions of tenure used in the 1971 agriculture census were:

Tenure of farm operator "Tenure" means the rights under which the holding or farm is operated. A holding may be owned or held in owner-like possession by the operator. It may be rented from others under a tenancy or leasehold agreement. It may be operated by a manager or cultivated on a squatter basis or under other forms of tenure. A farm manager is an operator who receives salaries or wages. Farm operators could thus be classed as *full owner*, *part owner*, *tenant*, *manager*, or others. When the operator's holding is partly owned and partly rented from others, he is considered as part owner.

Full owners Full owners own all the land they operate. Land is said to be owned or held in owner-like possession if it is operated under a title of ownership in the name of the holder or farm operator, corporation or institution or the holder operates the land in an owner-like way even though he does not possess a title of ownership as exemplified in the following cases: (1) land purchased on installment basis or under long-term contract; (2) hereditary property; (3) land held under the homestead law; and (4) land under long-term lease, or land which, without legal title of ownership nor of long-term lease, has been peacefully and uninterruptedly operated by the holder for a period of 30 years without payment of any rent.

Exceptions to this condition are squatters on government land. Even if squatters who are farm operators have been operating said government lands for more than 30 years, their form of tenure is still "squatters."

Part owners Part owners are farm operators whose holdings are partly owned and partly rented from others.

Tenants Tenants are farm operators who rent or lease from others the land they operate. The rent may consist of a fixed amount of money or produce, a share of the produce, or it may be based on some other tenancy agreement.

Cash rent Cash rent is a fixed amount of money paid to the landowner as rental for the land worked by the holder.

Share of produce Share of produce is a share of the harvest paid to the landowner as rental for the land worked by the holder.

Fixed amount of produce Fixed amount of produce refers to the paying of a specific quantity of crops agreed upon by both landowner and tenant for the rent of the land. The tenant or renter is obliged to deliver to the landowner the quantity of produce agreed upon, whether or not he gets any harvest from the land.

Rent free The holder or farm operator does not pay any rent for the use of the land he operates. However, he recognizes an owner who gives him permission for the use of the land.

Other forms of rental This refers to a rental agreement in any form or a combination of the above such as a fixed amount of money and some share of produce.

Managers Managers are farm operators responsible for the day to day operations of a farm. They receive wages or salaries for their services.

Operators under other forms of tenure These are operators who operate farms under conditions other than those mentioned above. An example of "operators under other forms of tenure" is a squatter.

Almost 70% of all farms are fully or partly owned by the farm operator; whereas, 29% are under different types of tenancy (Table 41). As far as farm area is concerned, 73% are fully and partly owned and only 20% are under tenancy (Table 42). In terms of rice and corn, which are the two crops covered by land reform, the tenanted farms amount to 36.8% for rice and 30.4% for corn. As far as hectarage is concerned, only 30.6% of the rice area and 21.1% of the corn area are under tenancy. Looking at the entire farm situation, only 15.1% of all farms are under rice tenancy and only 6.8% are under corn tenancy. The tenanted rice area represents 9.5% of total farm hectarage and the tenanted corn area represents only 3.7%. On the whole, this means that only 13.2% of total farm area and 21.9% of the total number of farms are subject to land reform. Considering that almost half of the tenanted rice and corn landholdings that are operated by 57% of the tenants are owned by landlords who have only 7 ha or less (299) and, therefore, are not

likely to be included in land transfer to the tenants, the total effective hectarage for redistribution may be only about one-half of the tenanted rice and corn areas, which roughly means less than 10% of total farm area. Land transfer, although regarded as a major instrument for achieving greater income equality, is not likely to drastically shake up the prevailing patterns of landownership because about three-quarters of the farm area is operated by full or part-owners whose holdings are not part of the redistribution plan. Furthermore, their farms are larger (3.9 and 3.5 ha average for full and part-owners) than the tenanted farms (2.6 ha average) (Table 43). These data underscore the reality that the present land-reform program cannot be expected to bring about equality or solve poverty in a major way. Nevertheless, it is a first step in the restructuring of a very unequal society by the redistribution of tenanted lands from the landlords who own, to the tenants who cultivate, the farms.

Comparing the tenure status of different types of crop farm (Table 42) shows that some crops are more tenanted than others. Coconut, coffee, root crops, abaca, and corn have the highest percentage of hectarage under full and part-time ownership; whereas, tenancy is highest in rice and tobacco. Areas devoted to pineapple, cattle ranching, sugarcane, and bananas are more commonly operated under a "manager" system than the other crops.

From the land-tenure situation by region and province (Table 43), four major observations may be made:

Regions and provinces differ in incidence of tenancy with Central Luzon exhibiting the highest rate (49%), followed by Southern Tagalog (27%), and Bicol (23.4%). The regions with the least tenancy are: Ilocos (9.8%); North/Northeastern Mindanao (13.8%); South/Southeast Mindanao (14%); Eastern Visayas (16.7%); Cagayan Valley (18.5%); and Western Visayas (20.4%).

Fully and partly owned farms are larger than tenanted farms (3.9, 3.5, and 2.6 ha, respectively), but the largest farms are those under "management" (138.5 ha). These managed farms are most prevalent in Cagayan, Laguna, Negros Occidental, Occidental and Oriental Mindoro, Masbate, Davao del Norte, and South Cotabato, and are devoted to cattle ranches, and sugar, pineapple, and banana plantations.

The highest proportion of farm area under share tenancy can be found in Pampanga, Bulacan, Batangas, Cavite, Tarlac, Pangasinan, Camarines Norte, Albay, and Sorsogon.

A very high degree of full ownership among farm operators is evident in Mt Province, Benguet, Agusan del Sur, Sulu, Lanao del Sur, Davao Oriental, Surigao del Sur, Kalinga-Apayao, Batanes, and Palawan.

Ownership of land is regarded as an important tool for improving the lot of the farmer; therefore, let us examine the relationship between farm ownership and income levels (Table 44). It is evident that higher incidence of farm ownership does not necessarily mean less poverty. On the contrary, Central Luzon with the lowest percentage of farm ownership also has the lowest percentage of low income families; whereas, Bicol, Eastern Visayas, and Northeast Mindanao have higher farm ownership but also more poor families. For a measure of the relationship between these two variables, the coefficient of correlation yielded a value of r 0.18, which was statistically significant at the 0.05 level. This suggests that there is a tendency for provinces with a higher degree of farm ownership to have a higher incidence of low-income families. Thus, farm ownership by itself is no answer to poverty. Obviously in provinces with a very high proportion of farm ownership, but with high degree of poverty, land reform will not solve the problem and, therefore, other development strategies must be applied. Most of these provinces are very undeveloped and sadly wanting in basic infrastructure and development services. The farms they own might be unproductive or, if they are productive, the absence of other facilities prevents them from realizing the full potential from their farms.

Characteristics of farmers as a general occupational category

As of April 1971, the agriculture census reported a total of 2.35 million farmers operating a total of 8.5 million hectares (average farm size 3.6 ha). At that time, the Philippines had a total farm population of 16.1 million, or about 64% of the total rural population of 25 million. Only farm operators' households are included in this definition of farm population; therefore if farm laborers' households were added, the farm population might be as high as three-quarters of the rural populace. Although the

farmer's wife has had an average of 6.5 children at the end of her reproductive life, the average farm household size is only 6.8 members instead of more than eight because about two people have left the household already. About three-quarters of the farm households are nuclear, i.e. composed only of father, mother, and unmarried children. Married children usually set up their houses (77).

Contrary to the prevalent stereotype of the farmer as an oppressed share tenant, almost 70% of all farmers are full or part owners of the land they are operating. They are mostly *small farmers* with 61% farming less than 3 ha; 24%, 3-5 ha; and only 15% operating more than 5 ha. As far as fragmentation of farms is concerned, 61% of the farms are in one parcel; 30% are in two or three parcels; and more than 8% are in four or more parcels.

Farming is not an occupation for the very young as less than 4% are 15-24 years old. The average farmer is 43.8; about 15% are 55-64 years old; and 7% are more than 65. They have resided in the province for more than 33 years, which suggests relative geographic immobility. As far as farming experience is concerned, only 11% are newcomers with less than 5 years experience. On average, they have farmed for 19 years. These years of residence in their province and their farm experience are not to be taken lightly in mapping out agricultural development plans because our farmers are not likely to be naive in the business of raising crops and livestock. But experience is their "best teacher" because they do not have much formal schooling: 21% have had none; 69% have completed some elementary grades; 8% have secondary education; and less than 2% are college-educated. On average, farmers have 4.9 years of schooling (80), making them the least educated of all occupational categories.

One characteristic of the farming population that is seldom if ever realized is that some farmers do not have a rural residence. A 1975 national survey showed that 18% of the households that cultivated crops the previous year lived in communities classified as urban (probably the poblacion) (256). If we, therefore, have *rural nonfarm*, we also have *urban farm* households.

Although much of the international literature on the impact of agricultural and rural-development programs has focused on the reported widening gap between the large and the small farmer purportedly because the latter has been "left behind" by strategies that have favoured the better-off farmers, this is not the crucial issue in the Philippines. A major aspect of the serious inequality in our income distribution is "*the large discrepancy between the average incomes of farm families and those of non-farm families*" (227). Based on a minimum cost food basket that meets the recommended nutrient requirement, and using the price of marketed goods in selected localities, Tan estimates that about 70% of Filipino families are poor. But *farmers, farm labourers, fishermen, hunters, loggers, and related workers registered the highest incidence of poverty among all the occupational groups* (84% of them are poor and they receive the lowest income of all groups). On the other hand, administrative, executive, and managerial workers have the highest income and the lowest incidence of poverty (18%); followed by professional, technical, and related workers (22%); clerical workers (28%); miners, quarrymen (33%); sales workers (52%); service workers (57%); transport and communication workers (62%); craftsmen and production process workers (67%); and manual labourers (80%) (318). The more significant inequality, and therefore the one that deserves attention, is the one between farmers and nonfarmers, particularly white-collar workers such as professionals and executives,rather than the inequality among farmers, who as a category, are the poorest in the country.

In an analysis of what determines the incidence of poverty, Tan showed that schooling is the most important factor. The "incidence of poverty declines almost monotonically from 82 percent for those with Grades I-III years of schooling, to 40 percent for those with 4 years of high school, to 20 percent with 4 years of college. The incidence further drops to 14 percent as the heads of families achieve more than 4 years of college" (318). Considering that farmers are the least educated of all occupational groups, it is not surprising that they registered the highest incidence of poverty. Incidentally, agricultural education is a big enterprise in the Philippines, but farming is mostly in the hands of people with low educational attainment. As a matter of fact, it is low education that puts them in farming and the more agricultural the region, the higher the proportion of males employed with no schooling (72).

Given, on average, 6.5 children, what do farmers want for them? Fortunately or unfortunately, most farmers do not want their children to become farmers, if they can

help it. They want them to have college education as a way out of farming and into white-collar and skilled occupations. On the part of their children, farming is not an attractive occupation either. To be a farmer is not their dream in life. They would go to it only because there is no choice (70, 71, 75, 139, 287). *Agricultural manpower, therefore, is likely to remain a reluctant manpower for some time to come.*

In trying to comprehend the farmer as a farmer and in charting our course toward his welfare, we return to the notion that despite our social and ideological concerns, farming is basically a *physicobiological process*. The problems most frequently mentioned by farmers, regardless of crops, relate to: immediate production problems such as irrigation, pests, insects, disease, rats, floods, droughts, high cost of inputs, low yields; being better-off or worse-off in evaluating their own life situation depending upon success or failure in production; and whether they are asked before or after a typhoon or a disease infestation. Land reform, credit, or price support can enhance the production process but cannot replace it. Ownership of the land one tills is only one among many factors involved in farming. Similarly, the large farmer - small farmer categorization that is currently in vogue is too simple a dichotomy to reflect the complex realities in crop production. Promoting the welfare of farmers means much more than land redistribution and considerations of farm size. Even if we concentrate only on rice farming, and ignore for the moment all other types of food crops and livestock, there are an infinite number of factors that make up the basics and the surrounding circumstances in farming. Let us explore a few of them (78):

Suitability of land for production Rice, for example, like any other crop, seems to grow well in some places, but not in others. Class I land is ideally suited for rice production; Class II is suitable for rice production but has increasing limitations; Class II-A can be profitably planted in rice by adding purchased inputs such as fertilizers, chemicals, power, and labour; Class II-B land cannot be profitably farmed because production is too low to yield a profitable return on purchased inputs; Class II-B and Class III are only farmed when resources have zero opportunity cost; and Class IV is unsuited for production (168).

In real life, we are trying to grow rice under all these conditions. A farmer who grows rice on 1 ha of Class I land is probably better-off than someone who is trying to grow it on 7 ha of Class III land. How does Farmer A happen to have Class I land and Farmer B, Class III? Who knows?

Source and amount of water available Some farms are fully-irrigated, some partially irrigated, some rain-fed; there are lowlands, uplands, and some are "floating." Among the irrigated farms some have gravity systems, others, deep wells and pumps. Who pays for it, and the costs involved are different.

Intensity and diversity of cropping This includes: single-crop, double-crop, multi-crop, mono-culture, and multiple-cropping, not to mention the dry season and the wet season.

Vulnerability to the whims of nature These factors include floods, droughts, and typhoons. We have the typhoon-free areas and the typhoon belts. On the average, the Philippines gets 19.6 typhoons a year.

Accessibility of farm and home to development services Needless to say, farms along the roads have a decided advantage over those where you have to walk half a day to reach them.

Tenure status Farms are operated under different systems such as: owner-operator; part-owner; share tenant; leaseholder or lessee; amortizing owner; combination farmer (who as the name implies is owner-operator, lessee, share tenant, and landlord all at the same time but in different small pieces of land); squatter farmer; subtenant; and farmer administrator with hired labour. Even under share tenancy, we have 70-30; 65-35; 50-50 with landlords and tenants sharing the inputs and outputs in different proportions. Seventy-thirty is not necessarily better than 50-50 because the tenant shoulders more of the costs although he also gets more of the harvest. The lessees have fixed rentals but the level at which they are fixed varies not only in different areas but even in the same village. They can range from 5 to 30 sacks of rice per hectare depending upon productivity of the land, relationships between landlord and tenant, and the year when the farmer shifted from crop-sharing to leasehold.

Type of landlord We have all kinds of landlords: big-small; resident-absentee;

traditional-modern; paternalistic-nonpaternalistic; managing-nonmanaging; and fully or partially dependent on rice. The nature of the relationships and the sharing arrangements are conditioned by the above factors.

Access to other income sources Some farmers are better-off than others not because of their farm but because they have off-farm and nonfarm jobs.

Number of land parcels farmers cultivate In one study in Central Luzon, 47% of the rice farmers had more than one parcel of land, and these parcels were not always in the same vicinity. Furthermore about 35% had more than one landlord. One parcel may be more productive than the other, and one landlord more generous than the other.

Farm size and tenure status are individual factors. Each one by itself does not mean much. The complexities brought about by the combinations of coexisting factors make it difficult to predict the "winning combination" as far as participation in the benefits of agricultural development strategies are concerned. As one farmer so aptly put it: "When the harvest is good, I want to be a leaseholder. When the harvest is bad, I want to be a share tenant." Although there are "bundles of positives" and "bundles of negatives" in resource and institutional endowments, there are also compensatory factors such as the usual larger size of rain-fed as against irrigated farms, etc. Incidentally, small farms have also registered higher yields per hectare than larger ones (76).

On the ubiquity of geography and the physicobiological factors in agriculture, Luning provides an excellent illustration in his analysis of the agricultural sector and his working hypothesis that a *homogeneous agricultural zone* is the *single most important element* that helps to explain technical and socioeconomic patterns in this sector. To test the hypothesis, the agricultural areas were stratified and five homogeneous agricultural zones were identified: *irrigated lowland rice areas*; *rain-fed rice areas*; *upland areas proper*; *rolling sugarcane/rain-fed rice areas*; and *fishing barrios*. Associated with the five groups are different topographic slope categories of 0-3% (irrigated, rain-fed); 3-8% (rolling); and above 8% (upland). Their tests on the working hypothesis for a number of socioeconomic variables showed the following relationships:

The size of household is related to slope category. There are proportionately more small families (1-4 household size) in the areas with more than 8% slope; whereas, in the lowlands, more large families (9 members) are found with the percentage of medium-sized families fairly evenly spread in all slope categories.

Educational attainment is also connected with topography, with the hilly/mountainous areas exhibiting the highest proportion with "no schooling." People with some high school education can be encountered twice as often in the lowlands compared with the areas beyond the 8% slope.

Labour force participation rates vary among the five groups. Agricultural labourers tend to be concentrated in certain zones.

Tenancy tends to be concentrated in the irrigated areas, followed by rain-fed areas; whereas, the uplands generally show a higher proportion of ownership.

Cropping patterns are clearly related to topography and climate. In the case of livestock, carabaos are most numerous in rain-fed areas and are less numerous in irrigated areas; the upland cattle population, however, increases with slope and they are most numerous in upland areas.

Both total income and agricultural income are highest for irrigated areas, next in the rain-fed areas, and lowest in the uplands. People in the mountainous areas try to make up by pursuing off-farm opportunities, but migration remains highest in the uplands. Poverty is widespread, and their lower education makes them ineligible for higher-earning occupations. Upland areas have low labour absorption capacity and low labour productivity, and, as well, wage levels are depressed although a higher percentage of farmers are owner-operators. Landless labourers are conspicuous in the irrigated rice and sugarcane areas, but many can also be found in the rain-fed areas.

The less fertile and eroded upland soils result in lower margins of productivity. In addition, lack of accessibility means higher transport costs and lower farm-gate prices. Furthermore, new technology similar to the breakthroughs for irrigated rice is not available for the upland areas (220).

Portrait of specific farming groups

Rice farmers

Because rice is the staple food of Filipinos, it takes up more farmland, employs more people than any other crop, and is a major preoccupation of the entire country. To the Filipino, rice is life, politics, and economics. Rice is survival itself. Self-sufficiency in this prime commodity has been both a promise and an avowed goal of every government administration for as long as one can remember. When we think of the Filipino farmer as a rice farmer it is not without basis because the rice farmer is the most predominant, the most important, and the most "researched" of all our farmers.

The *rice farmer is a small farmer* with about 70% of them operating less than 3 ha. Whether reckoned in terms of number of farms or farm area under tenancy, the majority of rice farmers (61%) are *full and part-owners*. Only about 37% are tenants, 30% of whom are under a crop-sharing system (80).

Information on some socioeconomic characteristics of rice farmers is given by an ACCI research project that sampled 6123 farmers (89% rice farmers and 11% corn farmers) (6). This 1973 study showed that only a little more than half (52%) of the farmers interviewed worked solely on their farms; 18% were engaged in farm and off-farm work; 24% in farm and nonfarm; and 5% on farm, off-farm, and nonfarm work. One percent had farms but were not working on them themselves because they were engaged in nonfarm work.

This tendency for rice farmers to work in jobs other than on their own farms was observed for all tenure groups, owner-operators, part-owners, lessees, and share tenants, indicating that regardless of farm ownership, farmers do not spend all their time and effort on their farms. *Half of them are part-time farmers*. As discussed earlier, this is contrary to the expectation of the land-reform program, which argues that farmers and their families will work more and harder when they become owners of the land they till.

Besides the fact that half the rice farmers are engaged in rice farming only on a part-time basis, most of them are only "marginal tillers" of their farm. Several studies have indicated that the use of hired rather than family labour has increased considerably and exchange labour has practically disappeared. In other words, *rice farmers are in the process of becoming farm managers/supervisors rather than actual tillers of the soil*. Another illustration of this phenomenon is provided by evidence from compact farms and seldas in Panay: about 35% of the 585 rice farmers interviewed in 1976 did not employ family labour; only 25% reported not using hired labour; and 92% utilized no exchange labour at all (255).

As Luning describes the situation in Panay, the *farmer himself is mostly engaged in supervising*. Whenever financially possible, a farmer will restrict his activities to his own enterprises and hire other people for some of the plowing, planting, weeding, and harvesting operations. He may be inclined to work on other people's farms for plowing and harrowing operations, but the weeding, he leaves to others. If he can afford it, he will limit his farming activities to supervising, watching his carabao and controlling the water (220).

In the light of these developments, in addition to tenure status, perhaps we should further categorize farmers into either *farmer-tiller* or *farmer-operator/supervisor* because if our policy is "land to the tiller," there must be some definition of what "tiller" means because "*farmer*" *nowadays does not necessarily mean "tiller."*

As found by the ACCI study, the kinds of jobs engaged in by farmers with off-farm activities are: work in other rice and corn farms (56%); coconut drying (25%); and the remainder are in tobacco drying and smudging; sugarcane harvesting; fruit picking etc. In other words, 18% of rice farmers can be regarded as *rice farmer cum hired farm labourer;* whereas, 24% are *rice-farmer cum nonfarm worker*, and of them 27% are engaged in carpentry and other construction labour; 17% in retail and other small business; 11% in white-collar employment; 9% in transport work; 7% in cottage industries; and 29% in other jobs.

As mentioned earlier, farmers as an occupational category are the poorest of all occupational groups. The rice farmer certainly fits into this poverty category. When asked about their own socioeconomic conditions, 30% considered themselves "poor" or "very poor," 18% "below average," 44% "average," and only 8% "good." Predictably, more than half of them (57%) are not satisfied with their present situation, while 43%

expressed satisfaction. Comparing their present condition with that of 3 years earlier, 43% said "lower", 27% saw no change, and only 28% thought their present income was higher than before. Notwithstanding this dim picture of the present, their views of things to come are rosier. When asked to forecast their own socioeconomic condition 5 years hence, only 8% expected the future to be worse, 19% thought it would be the same, 43% looked forward to a better life, and 30% admitted that they did not know what the future had in store for them. In short, no matter how dissatisfied they are with the present, they are optimistic, possibly uncertain, but not pessimistic about the future. It is also worth noting that, whether comparing the present with the past or future, rice farmers' rating of their barrio's socioeconomic condition is more favourable than their own. About 60% think that their barrio is better-off than in the past and a similar number feel the same way about the future. Apparently, they feel that the socioeconomic conditions have changed for the barrio in general, but their own family's situation has yet to find improvement. Part of their optimism for the future lies in their children. Eighty-one percent of rice farmers want college education for their children. Of course, their chances of ever achieving this are rather slim, but the hope and the effort are there, nevertheless.

Despite their poverty, about one-fifth of the rice-farmer families were able to put aside some cash savings, mostly from their farm income but sometimes from off-farm and nonfarm sources. Among those with savings, 39% mentioned family emergencies as their purpose; 23% were saving for their children's education; 12% for investment in another business; 9% for building or improving their homes; and 4% for settling debts. From this, we can gather that children's education ranks high and parents try to provide for the realization of their aspirations.

If rice farmers are poor and are dissatisfied with their livelihood, why do they farm? Rivera's study suggests that many rice farmers are "trapped" because they have little or no alternative. When asked about their reasons for farming, they said: "This is the only way I know how to earn a living"; "I was born a farmer, I will die a farmer"; "There's no place where I can build my house except on the farm"; "Farming is for the poor and the little-educated"; "I feel secure with my land"; "Farming is not so difficult after all." The most positive response came from 25% who said they "like farming very much" (287). The "rich farmer" seems to be few and far between and when we find him, he almost always has nonfarm sources of income or is farming as a tax write-off. If there were more rich farmers around, farming might be more coveted, rather than being a "residual" occupation for those who cannot find a more desirable means of earning a living.

Most of the time we think of the rice farmer as a producer, not as a consumer, of food. Our selfish concern as white-collar rice-eaters is what the farmer sells beyond his family's needs or what economists call "marketable surplus." The usual questions asked of the farmer are: how much he produced; how much he sold; and how much he kept for home use. Recent research, however, helps us to realize that this is an oversimplification that needs to be elaborated. The majority of the farmers sell their rice crop immediately after threshing so that they can meet pressing needs for cash. In general, "storing for purposes of getting a better price was not practiced. What was stored was only the rice for home consumption, but this was also sold when the need for cash became critical" (200, 287). Luning made a similar observation in Panay: "the majority of small farmers have very limited holding capacity, hence sell rather quickly after the main harvest to pay debts or take up the postponed consumption of necessary household goods, etc." (219). A recent study of farmers in a predominantly rice-growing area showed that almost half of them bought the greater portion of their rice needs and 18% bought half of their needs after disposing of their crops immediately after harvest. Only one-quarter of them do not buy rice at all. During the months of September and October, 74 and 46% of the farmers indicated that there was a scarcity of food in their households. In November, 16%, and in April and May about 12% of the farmer-households admitted to food scarcity. More than 7% said they missed meals and 63% were unable to meet their food requirements adequately. One of the most important items they dream of enjoying, if there ever should be a good harvest, is *good food*, which includes among other things, fried chicken, barbecued or roasted pork, and even dog meat (287). Most of the farmers spend almost two-thirds to three-quarters of their income on food (338).

In the final analysis, many rice farmers are *net purchasers of rice* and, therefore, they are both beneficiaries and victims of high rice prices and low production. Part of the marketable surplus is only an "interim surplus." Furthermore, a study of energy

intake and expenditure of some workers found that the calorie intake of farmers is lower than that of drivers and shoemakers but their calorie expenditure is the highest of the three groups. Farmers also have the lowest protein and fat intake. Although housewives were reported to have the lowest intake, they also have the lowest calorie expenditure. Farmers registered the greatest deficit in work calories (105). Again, the rice farmer is the first one to suffer from low productivity because he has to sell most of what he produces to pay for life's other needs, and then must buy some of his rice back so that he and his family may survive.

The stereotype of the farmer splurging much of his money and produce on fiestas and other recreational activities finds little support from empirical evidence. Two studies report 2-4% of their income goes for annual and occasional celebrations (139, 338). The ACCI study found the following forms of recreation among farmers and their household members: visiting neighbours, 22%; movies, 15%; attending fiestas, 11%; reading comics, 9%; gambling, 8%; attending parties, 7%; the remainder spend their free time in other activities such as "bull" sessions in front of sari-sari stores, etc. (6). Although gambling and drinking are indulged in by some farmers, the average rice farmer does not throw away his money on cockfights and things of that sort.

Because the Philippine rice situation can be characterized as "a century of very low productivity levels and of recurring shortages, importations and annual crises," rice farming and rice farmers have been the target of several programs to increase productivity through the development of yield-increasing technology and to improve their welfare through land reform, agricultural credit, extension, and farmers' organizations. In spite of predictions to the contrary and despite their poverty, minimal schooling, small farm size, share tenancy status, and many rain-fed farms, rice farmers have responded positively to the new rice technology such that in less than 10 years, 62% of the total rice area in the country is planted in new semidwarf rice varieties. Furthermore, annual output growth in rice production is explained almost completely by increased yield rather than by expansion in hectarage. Our rice farmers, therefore, cannot be faulted for being traditional, resistant to change, or unwilling to take risks, and for this unexpected response they have been dubbed the "miracle men" of the decade (76,168).

But these innovations and improvements in productivity have yet to solve our rice problem. Actual yields still lag considerably behind the experiment station potentials. As the former Director of the International Rice Research Institute (IRRI) reflected:

"The only real disappointment I felt was that somehow we did not understand sufficiently why the Asian farmer who had adopted the new varieties was not doing better. Somehow I felt that the rice scientists who had obtained yields of up to 5 to 10 metric tons per hectare on the IRRI farm still could not explain who so many Filipino farmers (for example) obtained on the average less than one metric ton per hectare increase in yield after shifting from the traditional to the high-yielding varieties" (82, p. 15).

These observations have led economists and agronomists in several national rice-research programs to cooperate with IRRI scientists in the study of the biophysical as well as socioeconomic "constraints" that prevent farmers from achieving as high yields on their farms as rice scientists have been able to obtain on experiment stations. They have identified "two distinct gaps between farmer's yield and experiment station yield. Gap I, the 'environmental effects,' shows the difference between the maxiumum possible yield of the technology under experiment station conditions and the maximum yield in farmers' environments. The second gap shows the difference between farmers' actual yields and the maximum potential under their conditions... In some circumstances, the gap between the best yields in experiment stations and the maximum potential under most farmers' conditions may be just as wide as the second gap" (168).

In farm-level observations from this "constraints" study, mean yields were 2t/ha during the wet season and 2.8 during the dry season. Heavy rains, floods, and typhoons caused low yields in the wet season, while in the dry season, farmers attributed yield loss to rat damage, shortage of water, lack of fertilizer, insect infestation, and weeds. The failure of the wet season crop reduced the use of fertilizer, herbicides, and insecticides in the dry season. Lack of awareness was not a significant constraint since 95% of the farmers had heard of the 16 practices that were studied. Inputs were also apparently available. The widespread adoption of the new seeds, with their accompanying components, has given us the impression that our farmers are sophisticated. Their ability to use each input correctly is, however, another matter. For example, while most of the farmers had used chemical fertilizers for over a decade, only one-third

correctly identified the time at which it should be applied. Knowledge of correct weed control practice was also very low. Although they use insecticides and can recognize the damages caused by insects, the identification of the insects responsible for which damage was not as encouraging. Practically all of them do use the new varieties, but the seeds they use are seldom pure because they obtain them from other farmers, and they plant their seedlings much older than the ideal age.

We therefore have a situation characterized by high awareness of yield-increasing technology and by high adoption, but with a low level of technical knowledge and consequently a high incidence of incorrect use of inputs. Bernsten suggested that "part of the yield gap could be reduced and that costs could be lowered by teaching farmers how to use presently employed inputs properly." This latter task depends on the intensity of extension exposure. Unfortunately, even in the study sites that are priority areas for rice production and land-reform programs, farmers received, on average, less than three visits per season. In most cases, "the purpose of the visit was to process papers which were required for obtaining an input loan. The education component of extension was largely neglected. At the same time over 75% of the farmers wanted the technician to visit him more frequently - indicating their receptivity to new knowledge and a positive attitude towards the extension technician" (31). The relevant issue, therefore, is no longer adoption-nonadoption but sufficient knowledge to adopt and use the technology properly. This is a definite role for the extension worker.

As part of our development thrust, we have agricultural credit programs and efforts to organize farmers for capital buildup and more effective delivery of agricultural services. Many farmers have shifted credit sources from landlords to banks. It is also evident that farmers are learning to use institutional credit for production purposes. For the crop-year 1972-73 only 34% of farmer-borrowers studied by the Bureau of Agricultural Economics participated in the Masagana 99 program, which used credit as a major component. In 1974, participation went up to 84% (9, 76, 201, 287). However, credit repayment remains a serious problem. Masagana 99 credit figures showed that the repayment rate was 92% for Phase I; 90% for Phase II; 78% for Phase III; 71% for Phase IV; 56% for Phase V; and 40% for Phase VI(243).

In the past, farmers were said to be caught in a perpetual state of indebtedness blamed on "exploitation" by their landlords. Today, they are still in a state of indebtedness, but to the bank, not to the landlord. Low repayment rates were attributed mainly to poor production performance or crop failures. Other reasons cited were: small quantity of rice sold; burden of other debts especially for family expenses; tendency of delinquent borrowers to pay private lenders and other nonformal credit sources before paying banks. Some farmers said that loan recipients in their area were unable to repay loans because of low production due to misapplication of loans. Still others said that these delinquents were not accustomed to paying loans and some were waiting for the lending institution to collect the outstanding loans. A few thought that nonrepayment was due to the farmers' perception of loans as government handouts and, therefore, they did not need to be paid (9, 326). On the other hand, there are indications that closer technical supervision of both the production process and the use of credit contributes to better production and improved loan collections. However, even among those who have been able to replay loans, there is some ambivalence toward credit. Although they acknowledge the need for it, they would prefer to have no debts and be free of worries. They are likewise uncertain that borrowing capital can help improve agricultural production and augment household budget (192, 201).[2] Credit, therefore, is not perceived as an "unqualified good thing" because of the accompanying risks and obligations. When asked what benefits they derived from credit, the following were mentioned by farmer-borrowers: enabled them to procure farm chemicals and fertilizers, 82%; hired needed

[2]Bruce Best in his paper on Some Socioeconomic Causes for Low Repayment Rates of Noncollateral Institutional Rice Loans in the Philippines which was presented at the IRRI Saturday Seminar, Los Baños, Laguna on May 21, 1977 also indicated the positive contribution of technician visits to loan repayment. He concluded that, "if the extension technicians would double the average number of farm visits in the wet season to seven, they would be able to increase the repayment rate of their farmers by 18% on the average." However, he also indicated that this may be a difficult task because most technicians have over 200 farmers to supervise.

manpower, 72%; increased farm production and income, 58%; agricultural loans were diverted to household needs, 44%; purchased farm tools and equipment, 20%; and paid previous debts, 14%. Although most of the borrowers cited benefits derived from credit, 13% felt that the loans were not sufficiently helpful in effecting the desired agricultural changes (9).

Farmers are "slow joiners" of organizations intended for their welfare. The advantages to them as individual members have to be substantial and clearly demonstrated before they will consider membership. If benefits in life could be obtained in some other way, without joining any organization, farmers seem to prefer to act on their own as individuals or as family. Altruism for the good of the community and of other members, even the less fortunate ones, is not the most salient selling point of farmers' associations (41, 76, 139, 335, 336). The experiences of some small-scale intensively supervised farmers' associations have shown that it takes at least 5 years before some degree of organizational viability emerges (14, 200). We seldom have the patience and persistence to pursue farmers' organizations beyond the initial organizational phase. Enthusiasm wanes rapidly after that and newer programs come into view. The nationwide precooperatives village association (Samahang Nayon) movement that is currently underway has yet to establish itself as a viable approach.

The land-reform program, which was expected to contribute the twin objectives of equity and productivity, has fallen short of expectations on both counts. Several independent studies have shown that, contrary to the assumption that owner-operators would have the incentive to produce more because any increases in production would accrue to them, share tenants were found to be as innovative and as productive as owner-operators. The reason why the latter are better-off is because they do not have to pay land rentals. Land reform or change in tenure status per se, therefore, has not contributed to increased productivity but has not hurt productivity either (76, 139, 224).

On the equity objective, contrary to the prevailing image of the landlord as a big landlord, 80% of them have small holdings of less than 7 ha and less than 1% own more than 100 ha. Although the latter own 30% of the tenanted areas, the greatest resistance to land transfer comes from the small landlords, not the large ones who were the first to enter into fixed rentals and amortizing arrangements with their tenants. Since the majority of our landlords are small, there is not that much land to redistribute. Furthermore, there are share tenants who refused to be "liberated" from their bondage to the landlord. Good relations with the landlord and the sharing of risks with them are their rationale for preferring the old system (139). Under a fixed rental or amortizing system, farmers shoulder all the risks involved and have to pay rentals regardless of success or failure in production. Those who shifted from share tenancy to leasehold and to amortizing ownership gave being their own boss and getting an increased share of the produce as their reasons for shifting tenure status. Those who said their life situations have improved do not necessarily attribute this to land reform but rather to increased production (76, 287).

But regardless of these "shortfalls," changes in social structure are in evidence because the "land-reformed tenants" have actually severed ties with their landlords and increased shares of the harvest have accrued to them. They have also become "their own boss" and many former tenants are on their way to landownership. As of August 1976, Department of Agrarian Reform figures showed that 221 078 tenants have received land-transfer certificates. The greatest challenge now is how to prevent these "new land-owners" from repeating the landlord-tenant system by becoming *landlord-farm managers* who do their farming via hired labour. Although this could have positive employment effects for the landless, it makes a mockery of the land-to-the-tiller policy. But perhaps tenants have never really promised to be tillers of their farm; they have only asked to be owners of the land they till. As discussed in the Chapter on Farmer's Labourer, there are many other possible reasons why farmers hire labour to do the job on the farm, and perhaps this practice has little or nothing to do with tenure status.

Corn farmers

The importance of corn as a second major staple crop, particularly in the Visayas and Mindanao, and as a vital feed ingredient for the livestock industry, is shown by the expansion in corn from 1.85 million ha in 1960 to 2.3 million in 1973. However, corn yields per hectare have barely changed: 13.6 cavans in 1965; 14.4 in 1967; 16.6 in 1970;

and 16.6 in 1973. The increases in total volume of corn production from 26.2 million cavans in 1964 to 45.8 million in 1973 can be attributed mainly to hectarage expansion rather than improved productivity per hectare (298).

The majority of corn farmers, like rice farmers, are small and are mostly full and part owners. Only 30% of the corn farms are tenanted and they occupy only 21% of the total corn area. Sixty-four percent of corn farms are 3 ha or smaller. However, 42% of total corn area is in farms of 5 ha or more, meaning that although the majority of our corn farmers are small, almost half of the corn area is in larger farms. In terms of tenure status, the corn farmer is mostly a full or part owner (68%), which covers almost 80% of total corn area. This means that only 30% of the corn farms and 21% of the corn area are tenanted (80) and there is even less tenancy in corn than in rice farming. Again, there is not much corn land to redistribute under land reform. In age and education, corn farmers are similar to rice farmers.

About 80% of the corn produced in the Philippines is consumed as a staple or as a rice substitute, with 14% being used in animal feeds. About 55% of all the corn produced is consumed on the farm; therefore, many corn farmers are subsistence-oriented. Corn plays second fiddle to rice in land allocation, especially in irrigated areas. In other words, if rice can be grown in an area, farmers would rather plant it; hence, corn is grown in many marginal and upland areas. In the latter, corn is grown mainly for home consumption. In rain-fed farms, it is usual to find a rice-corn sequence in which rice is grown when water is available. Two explanations have been offered for the preference of rice to corn: the level of technology in rice production is much higher than in corn; and price ratios and yield differentials per unit of land really favour rice.

The corn farmer lags considerably behind the rice farmer in terms of adopting new technology. Although more than 60% of the rice areas are planted to new rice varieties, only 10% of the corn areas are using the new corn varieties, with the remainder devoted to native varieties grown with very low input levels. Problems of pests and diseases, drying and storage, seed supply, credit, and marketing have been identified as some of the constraints in corn farming. So far, all available evidence indicates that on the basis of existing costs of production, yields, and government support prices, corn growing is not a profitable enterprise. At best, it is only marginally so even with the application of modern inputs (176, 187, 216, 298). As Luning points out:

"Two general production functions for corn can be recognized, one for traditional corn cultivation, the second for modern corn (Masaganang Maisan - a special government program to promote and support corn production). Traditional corn farming is predominant in the rolling areas of Western Visayas. It is of dwindling importance and has been replaced by sugarcane in large areas of Negros and Panay... The total crop area has diminished from about 140,000 to 50,000 hectares over the period 1960-1975. The bulk is found in Negros Occidental, where many corn-eating Cebuanos are living. Traditional corn growing is characterized by the absence of fertilizers and chemicals and is virtually non-market oriented. Traditional varieties are used, labor input is very low except for some hired labor for planting, weeding, harvesting... The Masaganang Maisan type is prevalent on the plains and is different from the traditional type in that fertilizers and chemicals are used. Total variable costs are 3-4 times higher. However, the ratio of marginal benefits to marginal costs for first and second crop is only 1.30 and 1.34, respectively. As a rule of thumb, it is usually taken that this ratio must be in the order of 2-3 to make farmers react favorably to new activities/programs. It is no wonder that the corn program has not been taken in greatly by the farmers of Western Visayas..." (It will be interesting to see if the sugar area previously planted in corn will revert to corn when the price of sugar drops as it did in 1976).

Further evidence on the inability of Masaganang Maisan (modern corn farming) to produce impressive results is provided by the Carlos and Darrah study which showed only a 3-cavan advantage in average yields, and a 4- or 5-cavan difference in yields obtained by the participants before and during the program. At any rate, the average yield of participants was only 21 cavans/ha (57).

The geographic distribution of corn farming shows Southern and Western Mindanao as the leading region in terms of hectarage; followed by Central and Western Visayas; Cagayan Valley, Northern and Eastern Mindanao, and Southern Tagalog. Because 20% of the country's population are corn-eaters, a distinction is made between white and yellow corn. The first type is grown on 87% of the corn area mainly for human consumption; the

rest is in yellow corn, which is used for animal feed. It is interesting that the leading producer of yellow corn is Southern Tagalog where corn is not eaten as a staple except during a rice crisis. Eastern Visayas recorded a 50% corn-eating population; Northern and Eastern Mindanao, 29.4%; Southern and Western Mindanao, 26.4%; Western Visayas, 24%; Cagayan Valley, 22%; and Bicol, 15%. It was found, however, that Eastern Visayas, which reported the most corn-eaters, also shows one of the lowest yields, less than 10 cavans/ha (187, 298).

Many corn farmers are not purely corn growers but tend to grow both rice and corn. The interaction between these two crops in the same farm are illustrated in Pascual's Leyte study that included 132 corn farmers chosen from two barrios each of 11 municipalities. Seventy-five percent of the farmers grew corn mostly for their own food, considered it their major crop, and were, therefore, subsistence-oriented. They had smaller farms and lower adoption of recommended corn-production practices. On the other hand, those who were growing corn as a minor crop had larger farms and were market-oriented. Rice was their major crop and they adopted more practices as a spill-over from their rice production. However, they perceived corn as less profitable than rice. About 60% of the corn farmers interviewed did not borrow money, for they seldom used purchased inputs, but surprisingly 72% of them used hired labour in addition to family members. Although almost 40% of the respondents had no contact whatsoever with corn experts and 27% were seldom contacted, there was a positive relationship between frequency of contact and adoption of modern practices. But it was the market-oriented farmers (those who grew rice as a major and corn as a minor crop) who had more frequency of contact with corn experts and had the larger farms. The majority of them sold their corn either directly to consumers or through middlemen (258).

Huelgas and Antiporta's study in Cotabato and Bukidnon similarly found a high percentage of hired labour (about 50% of total labour with only 30% provided by the operator). Despite the fact that tractors were used for land preparation, hired labour was still substantial because of harvesting and husking. Technical assistance in corn production was wanting; physical productivity was low; and low prices were paid for their produce. Their conclusion is that: "if the value of operator and family labour were computed, the remaining profit from corn farming would be meager" (176).

Chua's more recent study of Bukidnon farmers shows that one-third of the farmers use the combined rice and corn pattern and that more than half grow only corn. Those who produce rice grow mostly upland rice. The most dominant minor crops grown are cassava and camote, which are not only a source of some cash but are indispensable substitutes for rice and corn during long periods of drought. Incidentally, of the 1000 farmers studied, Chua found that only 58% of the farmers grew one or more minor crops. The rest did not grow any. Less than 20% have off-farm work, which consists mainly of land preparation, but also includes weeding, harvesting, planting, and transplanting. Almost 60% of those who did off-farm work were paid in cash; about 30% on a sharing basis; and 14% did off-farm work on an exchange labour basis. Only about 8% had nonfarm jobs (buying and selling, blacksmithing, woodgathering, sawing lumber, operating and repairing farm machinery, driving, barbering, photographing, tailoring, etc.). As shown in other studies, Bukidnon corn farmers have minimal use of modern inputs and cultural practices. High cost of agricultural inputs was the most frequently mentioned problem (40%). Only about one-third of these farmers had contacts with government agents. The vast rolling areas of Bukidnon, the undeveloped road network, and the lack of transportation facilities make the problem of delivering extension, health, and other services obvious. What is encouraging, however, is that about two-thirds of them are members of at least one organization, the most popular of which are the Parent-Teachers Association, the Samahang Nayon, and some religious organizations (86).

In general, however, Filipino corn farmers have yet to adopt the new corn varieties. The 1973 ACCI study, which covered all the regions of the country, revealed that only 7% have planted the UPCA varieties and 2% the BPI series. The rest are growing native and local seeds. On the other hand, about 60% of rice farmers have adopted the new rice varieties (6). Our corn farmers cannot be accused of being traditional and resistant to change because high-yielding, profitable corn technology must be made available before it can be accepted and applied. As of now, the native varieties grown with minimal inputs are still preferred because the advantage of the "new" over the "old" remains to be demonstrated. In the meantime, our national average corn yield is 16.6 cavans/ha; the yield of better farmers is 30; the break-even production considering costs of production and price paid for corn is estimated to be 60; and the experiment station yield

is 80. There is much work that lies ahead in developing the needed corn technology.

Coconut farmers

The coconut is known as the "tree of life" because every part of the tree, its fruits, leaves, stems, trunk, and roots, is utilized. It is also known as a "Lazy Man's Crop" guaranteed to drop a nut on one's head every 45 days without having to do anything about it. The hectarage devoted to coconut is the third largest of all our crops and employs 9% of the labour force in crop farms, but the Philippines is the largest coconut producer in the world and leads all other countries in the production of copra, coconut oil, and desiccated coconut. Although the area planted to coconut expanded from 1.059 million in 1960 to 2.133 in 1970, the nuts produced per tree per year have declined from 44 in 1960; to 42 in 1963; 37 in 1964; 38 in 1965; 40 in 1968; and 38 in 1970. Nuts produced per hectare declined from 7098 in 1960 to 5565 in 1968. In short, there are more coconut areas and more trees, but productivity per tree has declined and so has productivity per hectare. One reason for the decrease in yield per tree is *senility*, which means that most trees are old and declining in productivity. The problem of *senility* comes from the very nature of the tree, which begins to bear fruit from 6 to 8 years after planting and continues producing nuts up to 60 years. However, there are regional differences in productivity with Mindanao producing an average of 90-100 nuts per tree per year; Luzon, 40; Central Quezon, 80; and Southern Quezon, 35 (285). As of 1971, of the 432 486 coconut farms, 72.4% of them were less than 5 ha, and the more than 27% that were larger than 55 ha made up about 65% of the total coconut hectarage. The average coconut farm is about 4 ha (81). The plantations that make up 543 farms cover 12% of the total coconut area with 235.7 ha per plantation. Southern and Western Mindanao has 165 plantations; Bicol, 162 and Southern Tagalog, 77. The small holdings are mostly in Eastern Visayas (285).

In 1971, 74% of coconut farmers were full owners; 6.4%, part owners; and only 18% tenants. Most coconut farmers, therefore, own their farms. The incidence of tenancy is only half of what exists in rice farming and involves only 16% of the total coconut area (80). However, tenure arrangements vary. In Southern Luzon, small farms are often tenant-operated; whereas, in the Visayas, small owner-operated farms are quite common. In Mindanao, where the large plantations are located (some well over 1000 ha), hired labour is employed, exclusive of share tenancy (249).

Because of the "lifetime nut-bearing capacity" of the coconut tree, coconut production has not changed much through the years. Since four-fifths of the coconut produced is exported in the form of copra, oil, meal, and desiccated coconut, and only 17% is consumed domestically, copra-making is an integral part of coconut farming (286). As Deomampo found in his study of 520 coconut farmers, the average farmer had been operating his farm for 21 years and had been processing copra on his farm for 18 years (112). Because the method of making copra is antiquated, the quality of the product is poor and low farm incomes are the result of low prices paid for copra, which is the end-product of most of the coconut production (2).

Because copra-making is part of the operation in most coconut farms, one of the decisive factors in sharing arrangements is the method of crop disposal, whether by *contract sale* of nuts from the tree, by *husked nuts*, or by *copra*. As shown in Bernal's study, a smaller proportion went to the tenant-caretaker under the first two systems because the contribution of the tenant is mainly guarding and maintaining the area. When the coconut is sold as copra, the tenant gets as much as 50% because he provides more labour in preparing the product. The sharing arrangement ranges from 1/2-1/2 to 1/7-6/7. For example, if the product is sold as copra under the 1/7-6/7 arrangement, the landlord pays the tenant for the copra preparation on a daily wage basis, on a per hundred wage basis, or per 100 kg of copra. The 1/7 share he receives is for guarding the farm. If the tenant shoulders the expenses in harvesting and copra-making, he receives a larger share. Where the landlord shoulders all expenses, tenants are paid as labourers in addition to their share. After deducting expenses from gross return, products are shared in some proportion. The landlord may contribute work animals, a copra dryer, tools, or equipment, while the tenant contributes labour. Reckoning of the size of farm allocated to each tenant can be done by area or by number of trees. The majority of the tenants operate units of 4 ha and smaller because landlords believe tenants will work more intensively on a smaller unit. The landlords' insights are borne out by the data, which reveal declining production per hectare as the size of the operating unit increases up to a certain level. The coconut landlords also believe

that their tenant-caretakers have less reason to complain, because they get more from the land: they get nuts for cooking needs and sometimes even for livestock; their children usually pick fallen nuts for school money; the landlords do not get a share of other crops planted, especially vegetables; and the caretakers are paid per tree for any coconut trees replanted (30). They have a share in secondary crops and in many cases the tenants are allowed to have all the produce of annual secondary crops that they can raise.

Because coconut is a cash crop, patterns of selling copra determine to a large extent how much is earned from the products. There are three kinds of copra buyers: *barrio buyers* and *town traders*, whose primary source is farmers and other barrio buyers, and *exporters*, who procure the bulk of their copra from the other two buyers. Because the bulk of the copra passes through many channels before reaching the final processor, the cost of handling the product affects the price without necessarily benefiting the coconut grower. At the barrio level, competition among buyers exists not so much on prices offered to farmers but on extension of credit and advance agreements on prices. An estimate of the profit distribution shows the following: the tenants' share per 100 kg of copra is only 24.6% of the FOB export price of the copra; the landowner's share is equivalent to 44.6%; and the overseer takes about 4.6%. The profit of the barrio buyers, the town dealers, and the exporters amounts to 26.1% of the average export price of 100 kg of copra, and of this, the barrio buyers get 12.3%; 6.2% goes to the town dealers, and the exporter shares 7.7%. The traditionalism of copra-making is evident: 88% of the copra is produced by the "tapahan" system; 10% by sun-drying; and 2% by a combination of the two methods (285). Increasing income from coconut farming not only means changing cultivation practices but also improving copra processing.

How are the growers of the "tree of life" responding to yield-increasing methods of coconut cultivation? The most comprehensive investigation on this question was done by Nyberg (1966) who surveyed 1230 farms in 12 provinces (249). A more recent study done by Samonte et al. (1974) covered 400 farmers in Cavite, Quezon, and Laguna (295). These studies showed that the coconut farmer does not seem terribly enthusiastic about management practices that would improve productivity, although Nyberg found that Mindanao farms showed a higher percentage of adoption than those from Bicol and Southern Luzon. Fertilization is practiced in only 5% of all the farms, with Davao and Cotabato registering a 30% adoption. In Cotabato, Zamboanga, Davao, and Agusan, livestock was more ofter grazed under the coconut trees. Cover-cropping was used by only 11% of the farms, and in Cebu it was not done at all. Plantation clearing was done less than twice a year except in Davao, Agusan, Samar, and Bicol. Nyberg asked a question regarding frequency of plowing the plantation, but positive responses were so infrequent that essentially no plowing occurs except when related to intercrops like corn and palay. Although intercropping was done by more than two-thirds of the farms, there are regional differences (for example, in Misamis Occidental, Zamboanga, and Quezon only slightly more than one-third of the farms reported intercropping). There is a definite trend for larger farms to be more innovative with respect to fertilization, grazing livestock, and cover-cropping. Clearing and intercropping showed no relation to farm size. Cover-cropping and livestock grazing were observed mainly in Davao, Zamboanga, Cotabato, and Agusan. Again, the incidence of these twin practices increased with increased farm size. As pointed out earlier, farms in Mindanao produced more nuts per tree than all the other regions. For intercropping, bananas were used in 9 of the 11 provinces in combination with lanzones (lansa) in Laguna, rice in Quezon and Bicol, root crops in Samar, corn in Leyte, Cebu, Agusan, Davao, and Cotabato, and abaca in Bicol and Leyte. Another factor positively related to farm size is the amount of new planting. Very small farms tend to be fully planted, but larger farms have more vacant space for new plantings. Davao, Zamboanga, and Cotabato have experienced substantial new plantings over the past 10 years. The higher incidence of cover-cropping, grazing livestock, and fertilization on larger farms is related to availability of capital and greater occurrence in the new production areas (mostly in Mindanao).

The Samonte study, conducted 8 years later than Nyberg's, gives a similar verdict on the low innovativeness of the coconut farmer. Out of a total of 11 coconut-management practices, the average number of practices adopted by 480 farmers is 3.3 (Cavite, 4.3; Laguna, 3.4; and Quezon, 2.2). The three practices adopted most by the farmers are re-planting, 79%; intercropping, 62%; and cover-cropping, 48%. Only Cavite farmers showed high adoption of weed control, 78%; intercropping, 93%; and cultivation, 80%. The corresponding percentages for Laguna and Cavite are only about one-quarter or one-third of these rates. Except for the few "pockets of innovativeness" in Mindanao and Cavite,

farming remains mainly a traditional system of production, copra processing, and marketing. As Carlos describes it: "the national average production is about 38 nuts per tree per year which is only about 22% of the yield potential. Practically 4 out of 5 young fruits do not reach maturity. This is due mainly to nearly total neglect of coconut plantations. Most coconut farmers (tenants) do nothing more than visit the plantations during harvesting. Cutting of tall weeds is usually done purposely to facilitate gathering of fallen nuts. The coconuts are mainly dependent on nature for all their worth" (58).

So far, the descriptions presented have focused on coconut farming and very little on coconut farmers. The official definition of coconut farmer used by the Philippine Coconut Authority is one: "(a) who owns and tills the farm by himself and/or with the assistance of farm laborers and/or by the persons described in (b) and (c); (b) who harvests and processes the coconut product and is compensated in the form of the produce which he sells as his own; or (c) who works in the coconut farm and is compensated in kind which he sells on his own" (264).

This definition recognizes the non-soil-tilling character and the *processing* component of coconut farming and acknowledges those who are engaged in these functions as farmers. The hired farm labourer, therefore, is considered a coconut farmer provided he gets paid in the form of nuts or copra, which he is free to dispose of. In the case of rice and corn, this type of worker is not regarded as a farmer even if he gets paid in kind.

The research of Samonte et al. is a valuable contribution to what we ought to know about the small coconut farmer. Her sample of 480 farmers from 24 barrios of Laguna, Quezon, and Cavite showed that 42% had 1 ha or less; 19%, 2 ha; and only 8%, 8 ha or more. The small coconut farmers may be characterized from the results of her research.

(1) They are mostly part-time farmers. Less than one-third of them may be classified as "pure or full-time coconut farmers." Some are engaged in coconut farming as a main occupation with secondary activities either in coconut or noncoconut related occupations. The rest are marginal coconut farmers with a main occupation outside of coconut farming. Only 3% of 480 coconut farms have coconuts as the only main crop. Rice, fruits, coffee, vegetables, buri palm, root crops, and bananas are also grown on the farms. Only 26% of these coconut farmers depend solely on their own labour; 40% use help from the family; and 29% hire labour in addition to self and/or family. Of those who use family labour, 72% use 1-2 family members and 64% of those who use hired labour employ 1-4 workers.

(2) Coconut farmers have different types of tenure: farm owner-operators; tenant-caretakers; farm manager, foreman; owner-tenant/caretaker of another's farm; overseer/guard/watchman; and owner-manager of another farm. The first two categories are the most prevalent. Unlike tenants in rice farming, tenant-caretakers in coconuts do not exercise as much decision-making and probably do not do as much work in farm operations because of the perennial nature of the crop and its lifetime productivity. Guarding and watching tend to receive more emphasis; hence the term tenant-caretaker. Bernal's observation that tenant-caretakers do not have much reason to complain seems to find support in Samonte's data. Fifty percent expressed satisfaction with the sharing arrangement and good relations with the landlord; 25% were passive about their arrangement, which was passed on from their parents; and 20% were unsatisfied because of low income and hard labour.

(3) Compared with rice growers, the majority of coconut farmers appear not only to be contented with this type of farming but actually consider coconut to be a good crop, and one that is superior to others. Very few are dissatisfied with being a coconut farmer. Needless to say, their favourable assessment is very much related to regular and continuous harvest, lifetime and easy source of income, less care, etc. We might, therefore, expect that these beneficial features of the coconut are also simultaneously the drawbacks to changes in its production.

(4) Regarding their state of well-being, more than half regarded the past and the present as similar; about 15% regarded the past as better, and one-third thought the past was worse due to poverty. For the present, 37% consider themselves neither rich nor poor; income is just enough for daily needs (19%); and one-third are not contented because of insufficient income. For the future, however, only 7% expect their situation to be worse; 31% expect a better life; 25%, the same; and 38% do not know what the future will be like. As they said: "Life changes like the turning of the wheel; only

God can tell; one can't tell his own fate!" Those who are optimistic about the future are anticipating their children to be educated and grown up by then. Their goals in life pertain mainly to educating their children, having a good and progressive life, and improving their farming. Their perceived means of achieving their aspirations revolve mainly on the exercise of the *work ethic* (57%) expressed in such words as "pagsisipag, pagtitiyaga, and pagpapakasakit" (hard work, perseverance, and sacrifice); use of improved farm management practices as a poor second (16%); and third, saving money (11%). When asked about their farm problems, the most frequently mentioned were: pests and diseases, 30%; natural disasters, 29%; low yield, thievery, stray animals, and destruction of trees, etc. Lack of capital was mentioned only by 2% and tenurial relations by 1%. The solutions they see to these problems centre mainly on adoption of improved farm-management practices: credit was mentioned only by 4% and improved sharing arrangements by 2%. In general, it seems that coconut farmers are in a state of contentment, a *happy medium* whereby they are neither terribly dissatisfied nor completely well-off in their livelihood. "Neither rich nor poor" appears to be an accurate description of their situation. Although they recognize farm problems and see changes in farming practices as a solution to these problems, hard work and saving money are mentioned more than adoption of farming practices as the means toward achieving their aspirations.

(5) God's will is regarded as important for success in farming. Next to that are saving money, hard work, family help in the farm, and management. Use of the latest scientific information is not perceived to be as important as the above-mentioned factors and production credit seems to be least important.

(6) Coconut farmers are also "formal-organization-shy" like rice farmers. Only 37% of them reported membership in farm, religious, civic, and other organizations. However, they all belong to informal social circles composed of 2-4 persons who are mostly family members of either blood or ritual ties, and close friends who are mainly coconut farmers or people engaged in coconut-related occupations.

(7) Regarding their general outlook or world view, 63% believe that most people can be trusted and depended upon for cooperation in a community project. Practically all of them (99%) agreed that one should sacrifice at present to get what one is striving for in the future. They also subscribe to subordinating their own individual goals to that of their family in cases of conflict (66%). Regarding dependence on government, only 46% agreed that people in their barrio can do much even without the help of government; a third of them disagreed. We can, therefore, say that coconut farmers believe in deferred gratification; in the primacy of the family over the individual; and in the dependability of people's cooperation for community projects. There was considerable doubt as to their barrio's ability to do much without government assistance (295).

Sugarcane farmers

The sugar industry in the Philippines evokes two popular stereotypes: (1) the *hacendero* or sugar baron whose lifestyle is characterized by all the trimmings of wealth such as mansions, high-stake gambling, trips abroad, sleek cars, fashionably dressed matrons, glittering jewelry, etc.; and (2) the *sacada* who is always projected as the epitome of poverty, as a product of exploitation. As Lynch describes the stereotypes:

"... the sugar industry is, in the minds of many, synonymous with social injustice in myriad shapes and forms. A common stereotype of the hacendero, for instance is, that of a pampered sugar baron living luxuriously on the rich profits wrung out of an oppressed and exploited laboring class. The sacadas, those migratory, seasonal cane cutters who travel to Negros annually to harvest the sugar are a symbol of this kind of injustice. At the national level, the sugar bloc is credited with powers of undue influence apt to shake the confidence of any politician, regardless of rank" (221).

Besides these stereotypes, there is also a special vocabulary that is peculiar to the sugar industry. We speak of *sugar planters* not *sugar farmers; hacenderos* not landlord. There is a *sugar boom* or *sugar plump* in *sugarlandia*, while in the case of rice, we have either *self-sufficiency* or *shortage*. We have *sugar barons* but never rice, corn, or coconut barons and in no other crop in the country do we have anything exactly equivalent to the power and influence attributed to the *sugar bloc* (whether in myth or in fact). Although poverty is very much a part of everyday existence among farm labour in other crops, sugar workers seem to have earned the distinction of being projected as the most "exploited" of all. They have also attracted more attention from activists and social reformers. Its "privileged" position is still very much intact as evidenced by

the fact that, in 1975, the percentage of total agricultural loans that went to sugar amounted to 57%, while rice, corn, and feed grains got 16.2% (327), despite all the Masagana 99 and Masaganang Maisan programs (intensified rice and corn production programs using agricultural credit as a major component).

The "pampered" status of the industry arises from the fact that "the Philippines ranks 13th among the top world sugar producers and it produces 3 percent of the world total sugar production. The average annual export earnings total $200 million representing 20 to 25 percent of the Philippine annual foreign exchange." But despite almost two centuries of experience in sugar exportation (the first sugar export was made in 1796), our sugar industry suffers from low productivity and inefficiency, which results in the second highest cost of production in the world. The comparative cost of production in U.S. cents/pound is 6-7 for the Dominican Republic; 5.5 for the Philippines; 5-5.5 for Brazil; 4.9 for the British West Indies; 4.5 for El Salvador; 3.8 for Peru; 3-4 for Taiwan; and 2-3 for Australia. The world figure for cost of production is 4-5 cents/pounds; thus we can see that Philippine sugar is produced at a high cost, which makes it difficult for us to compete in the world market (288).

In terms of area, sugarcane ranks fourth, following rice, corn, and coconuts with about 455 000 ha devoted to it in 1973 (an increase of 44% from 315 000 ha in 1966). About 5% of the labour force in crop farming is in sugarcane; hence it is a minor absorber of labour compared with rice and corn, which take about 77% (Tables 37 and 38). Most sugar farms are small: 70% are less than 5 ha, and less than 30% of the farms have more than 5 ha. However, the stereotype of the big hacendero is perpetuated and substantiated by the fact that the 5% of the farms that are 50 ha or more make up 66% of all sugarcane land with the remaining 95% of the farms occupying only 34% of the sugar area (Tables 39 and 40). Although more than half of the sugar farms (53.5%) are tenanted, a rate that is higher than rice (37%) and corn (30%), these tenanted sugar farms occupy only 16% of the total sugar hectarage. Two-thirds of the sugar area is farmed by full and part owners and 16% is operated by managers (Tables 41 and 42). Although there are large sugar farms, the tenanted area is small, and therefore, not much land would be available for redistribution even if land reform were extended to this crop. Furthermore, in Negros Occidental, which is the heart of sugarlandia, about 75% of the total farm area is operated by full and part owners; only 12% of the land is tenanted; and another 12% is operated under management (Table 43).

Geographically, sugarcane growing is concentrated: 46% of the total area planted is in the Negros Region; 24% in Luzon; 16% in Eastern Visayas and Mindanao; and 14% in Panay Island. Average farm size in the Philippines is 13.85 ha: Luzon has the smallest average farm size, 9.62 ha; Eastern Visayas and Mindanao, 10.18 ha; Panay, 10.6 ha; and Negros has the largest, 24.7 ha. Fifty-one percent of the sugar is produced by planters who operate less than 50 ha. Negros as the major producer accounts for 54% of total sugar production; Luzon 21%; Eastern Visayas and Mindanao 13%; and Panay 12%. Although 80% of the total sugar area is planted to the high-yielding varieties developed by the Philippine Sugar Institute, the national average yields for the past 27 cropping years have changed slightly. In 1947-48, the average yield was 79.8 piculs/ha; in 1973-74, 82.6 piculs/ha; and in 1974-75, 80.3 piculs/ha (271).

Farm size has an important influence on productivity, innovativeness, access to resources, management, and tenure status. Cabanilla, for example, found higher returns per man-day of labour, higher returns on capital investment, and greater productivity in large farms. This is attributed to the fact that large farms use more machine-days, hence have more efficient labour; have greater division of labour and specialization; have better facilities and incentives for the labour force; have better management capabilities; use more yield-increasing technology; and have better production resources. Small farms have low productivity; higher costs of production; higher investment on less fully-utilized machinery; and unwise use of capital investment (55). In 1975, the NEDA Western Visayas Regional Office in Iloilo carried out cost-return studies of sugarcane farms, which showed the following:

(1) 0-10 ha (98 informants): tractors were used on 50% of the land; only 16% of the farmers owned tractors; 47% of farmers used crop loans from agricultural banks; 34% owned a truck; cost of production was P93.50/picul of sugar.

(2) 10-25 ha (61 informants): tractors were utilized on 66% of the land; 23% owned tractors; 74% obtained crop loans; 66% owned one (or more) truck(s); and cost of production was P97/picul.

(3) 25-50 ha (34 informants): tractors were used on 77% of the land; 53% owned tractors; crop loans were used by 84%; a similar percentage owned truck(s); and cost of production was P91/picul.

(4) Above 50 ha (69 farmers, of those 35 had more than 100 ha): tractors were used on virtually 100% of the land; 93% owned tractors; 67% obtained crop loans; 83% owned trucks; and cost of production was P90/picul (24).

In another study of farm types in Western Visayas, Luning found differences in characteristics of sugar farms, not only with respect to size, but also with respect to type of land in which sugar is cultivated. For example, in the *rain-fed sugarcane* farms, the larger the farm, the higher the proportion who have carabao and cattle; who use tractors; and have access to credit. Among smaller farmers, a higher proportion have a secondary occupation and there is a higher tenancy rate. However, for the upland sugarcane farms, a lower proportion use tractors; they have less access to credit; and a lower percentage have secondary occupations. Practically 100% use fertilizer regardless of farm size and type of land, whether rolling, rain-fed, or upland. About 60% of the rain-fed sugar planters and 50% of the upland planters have secondary occupations. *Again, many sugar planters like rice or corn farmers have other occupations.* They do not depend solely on sugar farming (215).

Further evidence of productivity differentials according to farm size, and slope of the land, is provided by the NEDA study. Average yields in newly planted areas were 58 t of cane per hectare on farms below 10 ha, while the large farms (above 25 ha) yielded 68 t/ha. Differences for the ratoon crop are less: 52 t for those below 10 ha; 58 t for the large farms (24).

Productivity was found to be highest on low-slope land: the average production for newly planted cane was 70 t/ha on 0-3% slope land; 48 t/ha on land beyond 7% slope; and 59 t/ha on 3-7% slope. On ratooned sugar, differences were equally large: 60.5 t/ha on 0-3% land; 38.5 t/ha on land beyond 7% slope; and 48 t/ha on 3-7% slope (220).

Farm size and slope of the land are important because of the characteristics associated with them such as productivity, management capability, innovativeness, etc. The issues of poverty, inequality, and employment are related to these. Lynch, for example, found that on the very small farms, there are no resident workers, only temporary ones. On some small farms, the planter and his family do all the work without any outside assistance. Two factors were found to be significantly associated with payment of minimum wages to workers: percentage of excess workers on the farm; and professional competence of the planter. More farms with too many workers tend to pay lower wages. The more competent planters pay better wages and the affluent planter is more likely than others to pay the minimum wage or higher (222). To the extent that large farms have more professionally competent planters and have higher productivity, they could be expected to pay better wages.

The social structure in the sugar industry is determined to a considerable degree by the nature and requirements of sugarcane production and processing. In addition to all the hectares planted to sugarcane, there are 38 sugar mills (10 in Luzon, 6 in Panay, 17 in Negros Occidental, and 5 in Cebu-Leyte-Davao) (288). There is no question, therefore, that Negros Occidental and Panay (mainly Iloilo and Capiz) are the sugar centres. Perhaps this very concentration of the industry in one region (Western Visayas) makes it more vulnerable to the sweeping generalizations that perpetuate stereotypes. In contrast, it is rather difficult to crystallize characteristics of rice farmers because they are scattered all over the country where farming, as well as social, conditions vary considerably. On the other hand, the lifestyle and ethos of Negros Occidental is dominated by sugar and all its ups and downs in the world market. When the price of sugar drops it is said, perhaps only half-facetiously that: "If you want brand new cars about to be repossessed and diamonds at a bargain, go to Bacolod" (the capital city of Negros Occidental).

The capsule picture drawn by Lynch of sugarcane growing serves as a backdrop for the discussion of the social aspects of the industry:

"Raising sugarcane is a complicated business, a lengthy and expensive one. To get one crop through the growth cycle, from land preparation to sugar milling, is in Negros Occidental a matter of about 12 to 13 months. The most intensive activity takes place in that portion of the cycle devoted to the milling operation. This lasts from 5 to 11 months, and includes the cutting, piling, and loading of the canes, their hauling

to the sugar mill, or *central*, and their conversion there into sugar and by-product molasses. Contributing to the intensity of activity during this season is the clearing of fields that have just been harvested, preparing them for the planting of the new crop, and the initial cultivation of these newly planted fields. When milling has been finished and all fields properly started on the new growth cycle, the fields are 'closed', as they say, and the slack period, or *tiempo muerto* begins. If any migrant workers had helped out on a farm during the milling season, they would now return to their home province or provinces" (222).

To perform the functions essential to sugar production, sugarlandia has a hierarchical structure with a specialized division of labour considerably more complex than rice, corn, or coconut farms. At least eight social layers of sugarcane growers have been identified by Lynch (221, 222).

At the top of the hierarchy is the *hacendero*, the planter himself, who has ultimate responsibility for farming operations. He could be the owner, or the lessee who pays the owner 18-20% of the sugar produced in exchange for the use of the farm. As earlier emphasized, many of these "haciendas" even in Negros are less than 5 ha; do not have regular workers; and in some, all the work is done by the planter and his family without outside assistance. *Administrators* are a relatively professional group of sugarcane growers found usually in large and medium-sized farms. *Encargados*, or overseers, are found in middle-sized, large, and small haciendas. As Lynch put it: "Where all these three jobs are found in the same farm, the *planter* is the *employer*; the *administrator* is *top management*, and the *encargado*, *middle management*." The *Cabo* is a time keeper-foreman to whom workers report for assignments. *Permanent workers* or *dumaans* (old timer) are members of the regular farm staff and reside year-round on hacienda property as does the cabo. The *temporary workers* or *casuals* generally live in a nearby barrio, not on the hacienda; whereas, *sacadas* are migratory seasonal workers assembled and brought to Negros. *Contratistas* or *labour contractors* form the eight group and recruit the sacadas to provide harvesters to one or more planters in Negros.

Although sacadas have been a favourite rallying cause for social reform, if not "revolution," Lynch has found that, on the average, they make up only 10% of the field force. They are predominantly young (median age under 24 years), single, and come from Aklan, Antique, and Bantayan Island, Cebu. They are not simply a migrant work force without roots. On the contrary, 61% are farmers in their home provinces, and among them 20% are landowners; 12% are fishermen at home; and 10% are labourers. Only 14% say that harvesting cane in Negros is their only important source of income during the year. In other words, being a sacada is only a part-time job that provides only one source of their income. Despite the fact that about 40% of them are second-generation sacadas, and some even third-generation, those who have children who are old enough and strong enough to do such work do not want their children to follow in their footsteps.

In terms of age, education, and even nutritional status, there is also a hierarchy among these different groups. The average administrator and planter is a college graduate or near graduate; the average encargado has finished only two years of high school. Median years of experience in sugar farming are 9, 16, and 23, respectively. Forty percent of cabos finished grade school; permanent workers, 17%; and temporary workers, 22%. Nutritional status reflected by servings of protein-rich foods shows that 85% of hacenderos have an adequate diet in this regard; encargados, 66%; cabos, 58%; permanent workers, 50%; temporary workers, 40%. The median age of hacenderos and encargados is 45-54 years; cabos, 35-44 years; workers, 25-34 years. These differentials in status, affluence, age, education, and job security all reinforce the perception or reality of social tension usually attributed to situations of serious inequalities, especially if they are found in the same community.

For more insights into the human dimension of sugar farming, two of the UPLB-Philsugin studies of farm workers in the sugar industry (115, 331) in 14 districts[3] offer some degree of comparison between the situation in Luzon and Visayas, although the

[3]The milling districts included in the study are Dumalag, Capiz; Passi, Iloilo; La Carlota, San Carlos; Kabankalan, Bacolod, Fabrika and Victorias, all of Negros Occidental; Bais, Negros Oriental; Manaoag, Pangasinan; San Miguel, Tarlac; San Fernando Pampanga; Canlubang, Laguna; and Nasugbu, Batangas.

respondents in the two areas are not exactly comparable. The first study included 617 respondents, 261 from Luzon and 356 from the Visayas; the second interviewed 796 farm workers, 240 from Luzon and 556 from Visayas. The majority of the Luzon respondents in the studies are share tenants; the majority of those from Visayas are hired farm labourers with a few encargados, cabos, and nonagricultural workers. Keeping these sample differences in mind, some general observations and comparisons can be made.

Luzon respondents have more education. Forty-six percent in Luzon versus 29% in Visayas have completed 5-7 years of schooling; whereas, the proportion who have not been to school is less than 1% and 13%, respectively. But more interesting than this, because of the intergenerational mobility it reveals, is that 25 and 32% of their fathers received no formal schooling. Literacy is possessed by 92% of Luzon respondents, but only 48% of the Visayans can claim similar qualification. Although both groups mentioned financial reasons for their children being out of school, 10 and 16% mentioned lack of interest in school. Education qualifications deserve further scrutiny and attention both now and for the next generation because they definitely set a limit on occupational mobility. They aspire, at least wishfully, for higher education for themselves because they recognize that it is a passport for better opportunity. Although more than half of the farm workers, whether share tenants or hired labourers, are not satisfied with their job and aspire for technical, office, and other jobs in the sugar industry, 88% of all respondents feel that their education fits the job and only about one-third have intentions of shifting to another job. Their lack of desire to shift arises from their not being qualified for anything else; their lack of courage and opportunity; and, of course, the fact that more than 40% are satisfied with their current occupation. Their concept of ideal working conditions provides economic security for farm workers, equipment and tools for better farming activities, and harmonious relations between employer and employee. Some also mentioned a good sharing scheme, increased work area, better production, and giving rights to all workers. This orientation toward security is also evident in their desire to avail themselves of security plans for the future, with Visayans (55%) being twice as interested in this as those from Luzon (26%). Security plans most mentioned are life insurance (47%) and savings (20%). Even in their concept of a "good life," both for themselves and their family, *economic security, happiness for everyone,* and *peace of mind* were the most salient features.

Most farm workers have had farming experience (84%). Some started in farm work as early as 10 years of age or younger (14%); 41% had their first experience at ages 11-15; 25% at 16-20. In general, sugar-farm workers began farm work at a very early age. This first experience was acquired mostly by working on someone else's farm; some in tenanted farms; and only 16% on a family farm. About half of them have been involved in farming continuously since they started; 26% have been engaged in it, off and on. About one-fifth have been engaged in farm work for 10 years or less; more than one-third, 11-20 years; and the rest for more than 20 years. The average farm worker has been in this kind of a job for about 15 years. Their labour inputs in sugar-farm cultivation include plowing, harrowing, weeding, planting/transplanting, fertilizer application, harvesting, hauling, etc. Their activities are all physical and manual and require considerable energy expenditures. It is probably for this reason that about three-quarters of them subscribe to the saying that "health is wealth" and their major reason for believing in this old adage is that a "healthy person can earn a living." Considering the physical work that farm workers do, we would not expect many of the planters to actually perform these tasks. Again, even more than rice and coconut farmers, sugar planters are involved mostly in supervisory and managerial functions. The planter is seldom the cultivator. This distinction needs to be defined and emphasized because of its implications. One requires managerial capabilities, while the other demands physical energy and manual, manipulative skills. The first makes the decision; the second carries it out physically. The planter is not the tiller.

Luzon farm workers find themselves more in an environment of family and relatives than those in the Visayas. Most of the former have their parents living in the same locality and more than half of them have relatives among the planters. On the other hand, many of the farm workers in the Visayas do not have their parents in the locality and few have relatives among the planters. Their relationship to the employer is, therefore, more job- than kin-oriented.

Because of the hue and cry about benefits for sugar workers, it is noteworthy that about two-thirds of the Visayan workers received not only expected but also some unexpected benefits from the planters. The expected fringe benefits included free

schooling, bonuses, medicare, social amelioration, living allowance, and free housing. The unexpected benefits took the form of free clothing, unexpected bonuses and allowances, and more training and knowledge in sugarcane culture.

Although only one-quarter of the two groups of workers have secondary occupations, those from Luzon, especially the share tenants, derive farm income from the sale of farm produce. Half of them produce some other crop besides sugar on their farm, although most of them have only 2 ha or less. Their secondary occupations are unskilled farm labour, livestock raising, fishing, construction, and transportation. On average, whether in monthly or daily wages, Luzon workers were paid more. Furthermore, they also have more sources of nonfarm income from business investments and gifts, and more contributions to family income from their wife, daughters, and sons. In general, therefore, they have more alternative job opportunities and income sources than the Visayans. As expected, the share tenants of Luzon and the encargados and cabos of Visayas have the highest total household income among the different groups of workers.

The low level of farm workers' existence is suggested by the fact that about 70% of all respondents said that income is not sufficient for their food, clothing, shelter, education, and recreation. They make ends meet by borrowing from others, doing odd jobs, and tightening their belts. The latter course of action was much more resorted to by the workers in the Visayas (36% versus 9% in Luzon). More than twice as many from Luzon as from the Visayas resort to borrowing. Although more share tenants (60%) than agricultural labourers (20%) in Luzon and 30% in Visayas have outstanding loans, the purpose of the loan was quite different. Half of those who borrowed in Luzon used the loan for production and only 28% used it for food consumption. In the case of loans incurred by the Visayans, 68% used them for consumer goods and only 5% borrowed for production. Rural banks are the dominant source of loans in Luzon; whereas, employers or planters are in Visayas. About one-fifth of them used private money lenders. The subsistence existence of farm workers in Visayas is, therefore, very evident. Payment of loans is done mostly by deductions from the harvest in Luzon and by salary deductions in Visayas. Besides borrowing for food, the subsistence existence of farm workers, whether in Luzon or in Visayas, but more in the latter, is likewise evident in the percentage of total income spent on food, which is 68 and 70%, respectively.

Level of living among Luzon farm workers is better than among Visayans, whether in terms of lighting facilities, cooking fuel, and toilet facilities, possession of radio, or ownership of homelot. Only 14% of the Visayans own a homelot compared with 60% of share tenants and 40% of agricultural labourers in Luzon. Their dietary intakes also differ. More Visayans include fish in the diet; whereas, more from Luzon take vegetables and meat. About 65% of the respondents from Visayas and 75% of those from Luzon include vegetables in their diet. More of those from Luzon also take care of a carabao and/or cow and pig (87 and 72%); the corresponding figures for the Visayas are 30 and 40%.

Although organizational membership is low for both groups (30%), it is higher in Luzon (49%) than in Visayas (15%). However, the rate of participation of those in Visayas in government programs was much higher (73% versus 55% in Luzon). The Visayans participated in the Green Revolution and also had some involvement in family planning. In Luzon, the Green Revolution and Masagana 99 were the most popular with only a few involved in family planning. Response to the Green Revolution program is very encouraging, and it might be an important factor in increasing the vegetable intake in the diet. It should also be mentioned that in Visayas 18% of the respondents gave backyard gardening as their recreational activity. But, even more useful are the reasons cited for non-participation in government programs: no established programs; no opportunity to participate; not interested; and lack of information. Although being too busy was also mentioned, the previously cited reasons suggest the need for more vigorous program promotion and implementation.

Even in terms of attendance at training courses and seminars, more respondents from Luzon have benefited (32% versus 16% from Visayas). We should remember that seminars and training programs were mentioned by farm workers as one of the unexpected fringe benefits and educational opportunities for which they aspired.

Despite poverty, life for farm workers has its lighter side. Eighty-four percent of those from Luzon and 94% of those from Visayas indicated they had leisure time and recreational activities such as listening to radio, watching TV and movies, hunting, fishing, swimming, hiking, indoor/outdoor games, parties, and dancing. Contrary to our

stereotype of the sugar worker who loves drinking and cockfighting, only 3% mention drinking for recreation, although more did admit to cockfighting (18% in Luzon and 9% in Visayas).

In view of the conflict situation that many people read into the social hierarchy of the sugar industry, especially in the Visayas, it is important to note that 83% of the workers in Visayas mentioned having conflicts or disputes in the *past*, but at the time of the interview only 18% claimed to have conflicts. However, it should be noted that the people they have conflicts with are mainly other workers and nonsugar industry people; only 10% mentioned planters. Of the 15% of Luzon farmers who mentioned having current conflicts, 22% were with planters, 44% with other workers, and the rest with nonsugar industry people. The conflicts were mainly financial in Luzon and personal in Visayas. All conflicts mentioned by Luzon respondents and 89% of those mentioned by Visayans were settled through an intermediary. Only in Visayas were conflicts settled through court action (6%). On the whole, life among these farm workers is characterized by poverty, laced with some leisure, and touched by few conflicts and disputes. They are essentially nonpoliticized with less than one-third being aware of the existence of social classes in the community. Those who are aware perceive social classifications according to occupation and profession (33%); financial standing (26%); kinship (5%); and political affiliation (5%). Only 15% aspire for leadership in an organization or informal group, and only about 13% are interested in political positions. Moreover, the majority would not encourage their children to run for a political position. Regarding their relationship with the sugar planter, what stands out in the second UPLB-Philsugin study is not the favourable or unfavourable reactions of farm workers toward such matters as planter's attention to basic family needs, education, medical and hospital needs, crop-sharing, supporting help, and free fertilizer, but the high percentage of *unconcerned* and *no answers* to these questions. It is difficult to assess, however, if this "indifference" reflects farm workers' passiveness and apathy or the interviewer's inadequacy.

Given low education, limited occupational alternatives, and a sense of satisfaction, or more accurately resignation to their lot, in a place where social conditions are sort of "Utopian" in the sugar-industry context, farm workers do not wish the same life for their children. This state of affairs is exemplified by the agricultural workers and individual workers at the Canlubang Sugar Estate who were studied with respect to their social and economic aspirations (106). The Estate has two elementary schools, two high schools, an adult school, a public market, a bakery, a cooperative store, medical and hospital facilities with free hospitalization, medical and dental service, a church and a parish priest, a community library, outdoor free movies twice a week, baseball, softball, volleyball, bowling alleys, tennis courts, public TV sets, reading centres, free quarters, light and water, subsidized rice and sugar, Christmas and crop bonuses annually, free college scholarships for deserving high school graduates, industrial enterprises for nonfarm employment, etc. In such a setting, which looks like Utopia compared with typical village life in many other parts of the country, 75% of the industrial and 84% of the agricultural workers said they were contented with their jobs. In fact, 96% of the industrial and 98% of the agricultural workers would not accept jobs outside the estate if offered the same salary. Even an increase in monthly salary would not be enough temptation for them to leave if it meant separation from their family. They also felt that this wage increase would not be sufficient to offset the privileges of free house, light, and water that they enjoyed.

Although these findings speak well of management and of the status quo, other data from the same study point to different implications for the future. For example, in terms of education for themselves, half of the workers would not like to study further even if given a chance. However, among those who want to, more industrial workers would like vocational training and a college education; whereas, more agricultural workers would prefer elementary and high school education. For a meaningful perspective, it should be mentioned that industrial workers as a category have higher education, higher income, a higher level of living, and are more skilled than agricultural workers. Of great relevance to social change is the workers' aspirations for their children. Ninety-two percent of the industrial and 56% of the agricultural workers want a college education for their children. When asked how much education their children could attain considering socioeconomic limitations, the expectations of a college education were reduced to 58 and 39% respectively. In spite of their expressed contentment with their present occupation, only 36% of the industrial and 51% of the agricultural workers want their children to work in the same place, and only 20 and 19% respectively, want their children to follow

in their occupation. Sixty-four percent of industrial and 49% of agricultural workers would prefer to see their children in white-collar jobs outside the estate. Parents' reasons for choosing different occupations for their children were: (1) the desire to prevent their children from encountering the same difficulties they faced; and (2) the belief that their children, having better education, should have much better and easier occupations, preferably of the white-collar type. In general, these findings show that industrial workers who have higher status also have higher aspirations and expectations than agricultural workers who have lower education, lower income, etc. It is evident that those who have more, expect more, if not for themselves, then for their children. Therefore, the very Utopia in this particular sugar community serves as a high-level reference point from which workers are going to judge whether things are "better" or "worse." This makes it inevitable that the future be "better" than what is now "good" because "good" is going to be taken for granted.

Tobacco farmers

Eighty percent of the tobacco farmers, who are usually Ilocano, operate farms that are less than 3 ha. More than one-half of the total tobacco area is dotted by these small farms, which average just a little over 1 ha in size. Tenancy rate in this type of farming is almost as high (34.2%) as in rice (36.8%), and tenanted farms cover 28% of the total area (Tables 39-42). The total area harvested declined from 85700 ha in 1966 to 77600 ha in 1972, and then increased again to 84000 ha in 1973(Table 37).

If one were looking for the most "economic men" among Filipino farmers, the tobacco farmers would most readily qualify. The government price support program, for example, pushed the country's production of Virginia leaf tobacco from 3 million kg in 1954 to 46 million kg in 1963. However, this also tempted some farmers to produce the largest possible quantity of tobacco leaf regardless of quality. Coloma, in his study of tobacco farms in Batac, Ilocos Norte, found that only one grew Virginia tobacco before the price support program. Two-thirds of the farms were planted in corn that was used mostly to feed poultry and swine, which constituted a major portion of the farmers' cash income. Besides corn, they also grew cotton, peanuts, beans, and other vegetables. One-third of the farms just grew a single crop of rice. With the advent of Virginia tobacco, the cropping patterns changed to: tobacco and corn; tobacco and rice; tobacco and sugarcane; tobacco and legumes; or a tobacco-corn-rice cycle with corn raised for summer forage. The average size of the farm was 1.67 ha, and on average 1.13 ha were planted to tobacco. In cases of tenancy, the sharing arrangement was 67:33 (tenant:landlord) with cash expenses deducted from cash receipts.

These farmers, who had an average of 5 years education, all used insecticides because tobacco leaves to be marketable had to be free of holes and tears. They even used two or more kinds of insecticides. They sought the most suitable variety for their farm, but 30% used no fertilizer even if it was necessary. An equal number followed recommended plowing and harrowing practices. They also chose their market outlet on the basis of highest price offered, cash payment, and best leaf-grade classification. The buyers were their primary source of information and the mass media was seldom used. The responsiveness of tobacco farmers to economic factors again became evident in 1964 when production decreased because of problems in marketing and in the implementation of the price support program (89).

Other more recent studies (7, 297) of tobacco farmers continue to show the multiple-cropping character of tobacco farms, particularly where irrigation facilities are available. The typical cropping pattern throughout the year can be illustrated by a small farm in Bacarra, Ilocos Norte: from June to October rice is the major crop, which is followed by garlic, mulched by rice straw when available. Garlic is harvested at the start of summer. This is followed by a double-crop of native tobacco and mungo (mung beans). With such small farms, many of them less than 1 ha, and with a household of about seven members, tobacco farmers use their own and family labour in cultivating their farms. Hired and exchange labour is only a minor part of the total labour input. Rice and other food crops are produced mainly for home consumption and are sometimes exchanged or bartered for other goods like soap, bread, etc.

A recent institutional development in tobacco farming is the introduction of the *Timpuyog* (Ilocano term for cooperative or union) to unite tobacco farmers through an organization utilizing the concept of a *centralized barn* as a means of forging them together through a common activity (flue curing). This organization was deemed necessary because of the acute shortage of wood fuel that has gradually denuded the mountains of

the Ilocos Region. Undoubtedly the tobacco farmers' expansion of tobacco growing during the lucrative days of price support contributed to this depletion of wood fuel. In addition to the *centralized flue-curing* operation, which was started in 1973, an *auction market* was introduced, which enabled farmers to meet buyers, exporters, and processors directly in a system of sale by bidding for different grades of tobacco, and did away with middlemen (246).

Banana farmers

Almost as versatile as the coconut as a "tree of life" is the banana, which is planted in most backyards, in-between spaces, hillsides, kaingins, and even mountain tops. Bananas have helped fill, and continue to fill, the stomachs of many rural households. One of the virtues of the banana plant is its ability to perpetuate itself. A single plant develops suckers that insure the emergence of other bananas after the first one has been harvested. Because of the nature of the plant, there was little farming or cultivation involved in bananas until some entrepreneurs discovered the Japanese "yen" for it about 10 years ago. Since then, banana farming has become big business intended mainly for the Japanese consumer.

As of 1971 (Tables 39-42), there were 13 607 banana farms covering 58 299 ha. Almost 60% of these farms are 3 ha or smaller and in total they occupy 16% of the banana hectarage. Actually, about one-quarter of total area is in farms of 50 ha or more. Seventy-five percent of banana farms are full and part owners, while only 23% are tenanted and make up 13% of the total area. Another 16% of the area is under a management system: the major banana plantations in Mindanao.

The modern banana industry is analogous to an automated factory that employs rather exacting production and processing techniques designed to satisfy quality requirements set by the demands of the export market (69). The tasks involved have been broken down into individual specific jobs with each group of workers skilled and trained for the particular operations assigned to them. However, this production and processing is not a simple matter of following a routine in an assembly-like fashion. The nature of this "routine" is determined by: research and judicious application of what is already known about the culture of bananas; available technology; and the managerial requirements for economy, efficiency, and effectivity of the production process. The single goal is to produce quality bananas to satisfy the Japanese consumer.

The routine in banana production and processing includes such procedures as: land clearing; deep plowing; construction of farm roads, bridges, and farm drainage; hauling seed corms for treatment, paring, and treating, then hauling them to the planting area; lining and staking; planting to seed corms; fertilization; pest and disease control (leaf pruning); sigatoka control (aerial spraying); stem sanitation; weeding (manual, chemical, and mechanical); sucker pruning; propping the banana plants with bamboo; fruit bagging; blow down (cutting of fallen hills); harvesting and hauling fruits which includes cutting, hauling, and loading the fruits to the roadside and hauling to the packing house; packaging, which includes dehanding, washing, weighing, packing, box assembly, hanging, sorting, trimming, stacking and recording, box feeding, stapling, box reforming, inspecting, and sanitation (treatment with fungicides); and hauling to the wharf for loading in refrigerated ships that will take the bananas to Japan.

Departure of the boat for its destination in Japan does not mean the end of responsibility for the product. The bananas must undergo a ripening process before they reach the wholesalers, retailers, and ultimately the consumer. The final test of its quality is its acceptability to the Japanese household. Needless to say, its taste will be influenced by all the other procedures employed earlier. Throughout the process there are attempts at precision and standardization, even in the calibration of the fruit that will be harvested. Adherence to specific standards means elimination of fruits that are unfit for export, particularly in the presence of competitors such as Taiwan, Honduras, and Ecuador. Just like the sugar planter, the fate of the banana farmer is tied up in the international banana situation.

Given the high degree of specialization and the division of labour involved in producing and processing bananas for export, there is need for coordination of the different tasks. This calls for management of men in order to maximize the incentives for skilled and unskilled workers so that they carry out routine procedures as religiously as possible. The adoption of modern technology and of time and labour saving procedures is a function of management and not of each individual worker. The application of land,

labour, technical know-how, capital, and management expertise in their various combinations approaches very closely the characteristics of bureaucratic management in the Weberian sense. We find job specification, hierarchy of authority, and regular and continuous fulfillment of duties and responsibilities by those who are qualified to carry out these different functions and decision-making, based on detailed daily records of operations. For a perspective on the nature of this management, remarks made by some key personnel in two banana firms are paraphrased:

(1) Creativity in the banana industry lies in the determination of the infrastructure that must be developed to make the production process more efficient and effective. As soon as irrigation, drainage, and basic cultural practices have been established, the production of bananas is a matter of routine.

(2) A few highly trained technical experts determine via research and systematic analysis of available production data the most productive methods and the most effective quality control and pest and disease control measures. From then on, the individual worker in the assembly line exercises practically no independent judgment. The practices that are adopted are uniform and almost dictatorial. The job of the supervisor is to provide sufficient leadership as to motivate the workers to carry out the job and get a certain amount of work done. Personnel management, therefore, is as important as the discovery and application of the latest techniques in Sigatoka control.

(3) Bananas are grown more by statistical methods than any other crop. What is missing among prospective top-level personnel is the ability to look at things statistically. Because of the high degree of specialization and division of labour in the industry, this ability to coordinate, analyze, and interpret the results of trends in the various operations is indispensable because projections, plans, and estimates of production must be determined relative to market demand.

The nature of the banana industry is such that only a few key positions are needed at the top; some supervisory personnel are needed in the middle levels; and the rest of the manpower requirements can be filled by both skilled and unskilled labour. For the latter, college graduates will be "overtrained."

Alternative Organizational Systems for Banana Production

Even with the highly specific tasks associated with banana production, it is possible to grow the same bananas under different organizational systems. Because of the implications for equity, productivity, and welfare, two systems will be compared: the *plantation system* and the *individual farmer-grower system*.

The plantation system - A plantation owned by a corporation occupies a contiguous area and practically all the employees and labourers live within the area. Under this arrangement there is an overlap between work and community life. The corporation that owns the plantation is dependent on hired labour, about one-third of whom are female. The relatively high proportion of women in the labour force is due to the nature of the production process, which lends itself to the use of feminine hands for weeding, fertilization, fruit bagging, packaging, stem sanitation, paring, treating of seed corms, etc.

The plantation is not simply a piece of land where bananas grow. It is a place for social interaction and community life, the rhythm of which is very much influenced by the life cycle of the banana and the demands of the Japanese market. Activity peaks when the bananas have to be harvested and packed for shipment. The plantation as a community combines the contractual requirements of the job in terms of paid working hours and specified responsibilities with the personalistic relationships arising from residential neighbourhoods within the plantation. The labourers, supervisors, office employees, and top management all live within the plantation in some kind of ready-made stratification system. It is inevitable that status occupied in the work situation tends to carry over to the different aspects of community living. The managers, supervisors, and their wives almost automatically become community leaders, perhaps not because they want to, but more because they are expected to. Therefore, the task of making the plantation a community also belongs to the top leaders of the enterprise. The corporation provides free housing, light, and water to all employees and labourers. There is an infirmary with a doctor, dentist, and nurse who look after health needs, and two chapels that serve as the community's religious centre. Houses for the labourers are organized in neighbourhoods locally known as *camps*, which are really ethnolinguistic groupings such as Cebuano-Boholanos, Ilocanos, Moslems, etc. However, assigned place of work in the different farms of the plantation function as social homogenizers in the sense that

workers have a chance to interact and, therefore, develop social ties outside of their own neighbourhood. The peculiarities of a plantation community and the employment of women in the farm and packing houses have a number of other social consequences.

(1) Working on the plantation has become more of a family affair with father, mother, and older children on the payroll. Therefore, the family has a higher pooled income than if the father were the sole breadwinner.

(2) Work for women could also mean higher status for them because of their ability to contribute to the family coffers. For the young men and women, it could mean heightened aspirations for education and a better life, and the likely postponement of marriage to a later age. If they ever reach high school, which is located in a fast-growing town, their horizons are no longer limited to the boundaries of the plantation. For married women, it could be an incentive to space children or to have fewer children. Frequent child-bearing is not compatible with the demands of daily work on the farm and in the packing house. For families with wives and older children employed in the plantation, babies and pre-school children are left with less care and attention than what is ideally required.

(3) The housewife, who is responsible for both the household and work in the field, is faced with the task of simplifying the daily chores of food preparation and home management. The *canteen*, a store run by management, supplies food and other essential items to the workers and their families on credit chargeable against their wages. Available provisions in the store determine considerably what will be cooked and what will be used in the household. If fresh meat, fish, and vegetables rather than canned goods were kept in the store, the diets of workers' families would be influenced accordingly.

(4) The banana industry as a corporation lodged in a plantation community has a ready-made social stratification system and a leadership structure inherent in the hierarchy of bureaucratic management. This management system gets the job done, but it could make for an awkward social life, especially when leaders come from the management and labour unions. To the extent that the union officials command the loyalty and respect of the members, they have bargaining power with management and, therefore, a leadership status in the community.

Individual farmer-owner system - In contrast to the plantation community that is owned, managed, and supervised by a corporation, another banana exporting company is organized so that a major share of the acreage needed to produce the fruit is contracted to individual Filipino farmers. For its part, the company (a foreign one) provides the capital, necessary infrastructure development (roads, irrigation, drainage, etc.), planting materials, trained technical personnel and know-how, worldwide marketing facilities, scientific knowledge, and practical experience. The relationships between the company and the landowner are contractual, formalized, notarized, and highly specific as to the obligations and privileges of both parties for a stated period of time. These specifications include such things as: planting only the recommended variety and seeds furnished by the company; following banana cultural practices prescribed by the company; permitting them to determine conditions of pest and disease and to carry out control of pests and diseases; adhering to agreed upon layout and area of banana plantings unless the company gives written authorization for the farmer to do otherwise. As a final stipulation and a clincher that these measures for quality control are in fact carried out, the company guarantees the purchase of the bananas at a definite price provided that they are delivered in good condition, padded for transport, the hands are at least 7.5 in. (19 cm) long measured on the outside curvature of the finger, free from disease and insect damage, fresh, clean, unbruised, free from damage caused by low (56°F) temperature, at the assigned calibration, and of a grade and maturity specified by the company, which has the option to reject without any liability whatsoever bananas which do not meet the stated specifications. At the start of the harvest period, this matter of rejection was a source of irritation between the planter-owners and the Company because percentage of bananas accepted for payment determined earnings from the farm. On the other hand, this strict adherence to standards of acceptance serves as an incentive to comply with Company specifications with respect to cultural practices and pest and disease control. It is a built-in system for "motivating" adoption of recommended practices.

Several variants of individual-planter arrangements are in effect:

(1) The individual planter-owner has a direct contract with the company. Sometimes the landowner hires somebody else to operate the farm for him, but the farmer is directly

responsible to the company.

(2) Individual landowners bind together in a growers' association, and the company deals with officers of the association instead of with individual farmers.

(3) A management corporation leases land from individual farmers for a fixed rental, and the corporation enters into a contract with the banana company. This very much reduces the problems of linkage with individual landowners. Due to past failures in cash-crop production in the area, not all the landowners are immediately willing to sign up in spite of the fact that some of their lands are idle and planted only to cogon. As a consequence of this reluctance on the part of some landowners, the banana area is figuratively a checkered farm with patches of uncultivated land in between. Although this checkered pattern dramatically illustrates the freedom and individuality exercised by the Filipino landowner, it is a very expensive proposition to lay out irrigation systems, roads, and drainage canals, and for aerial spraying. One cannot effectively avoid the vacant areas interspersed with the banana-planted pieces of land.

Characteristics common to both organizational setups

In spite of differences in the way these two banana "communities" are organized, they have certain characteristics in common.

(1) The cultivation of bananas in the Philippines is highly dependent on technology borrowed from the Banana Republics in Central America. This transfer of technology is naturally accompanied by corresponding problems of modification and adaptation.

(2) A three-way tieup between Filipinos, Americans, and Japanese exists in several factors of production such as: technical expertise, technology, land ownership, personnel management, operational capital, and marketing. At the moment, this is a functional arrangement and perhaps it is the only one that is feasible at this stage in our country's development, considering our relative naivety in the business of production and export marketing. At the level of the banana community, the problems of nationalism are probably of an interpersonal or intercorporation nature, especially because it is a local source of livelihood. Furthermore, an export industry thrives on its ability to relate to other countries. A retreat into isolation means the death of the industry, but it also means that our "fortunes" are determined by market and technological developments outside our national boundaries.

(3) In either setup the manpower requirements call for only a few highly trained personnel such as college graduates, MSc, or even PhD holders. These are the people who would be responsible for developing the techniques essential for the culture and processing of bananas. A few others with college education are needed at the managerial and supervisory levels, but aside from these few positions at the top, there is not much need for college graduates. High school, or in most instances grade school, is sufficient to meet manpower requirements. As a matter of fact, too much education and independent judgment on the assembly line could be dysfunctional if not disastrous for the established routine operations. The kind of training required by these assembly-line workers is best provided on-the-job. Right now it is only in the banana industry where technology, expertise, and such training are available. In this highly competitive industry, one could expect a policy toward exclusive control over techniques that are, in effect, trade secrets. Therefore, it is not very likely that schools will be entrusted with this exclusive training function. Agricultural universities and research institutions can, however, play an important role in terms of developing production techniques, pest and disease control, better varieties, storage processes, personnel management, statistical tools of analysis, irrigation and drainage systems, etc.

(4) The contribution of the banana industry to government revenues, foreign exchange earnings, employment opportunities, land cultivation, and infrastructure development by way of roads, irrigation, drainage, wharfs, etc. is quite substantial.

Critical social issues in the two systems for banana production

Given the peculiarities and similarities between the two systems, there are critical social issues that come to mind, the negative or positive aspects of which depend upon one's values.

(1) It is evident that in the plantation community, the corporation assumes more responsibility for the welfare of the community and of their workers' families - a system some people label paternalism. They have livelihood even without owning land. On the other hand, the individual-farmer-owner system offers a more strictly contractual

relationship between growers and the company. It also offers an opportunity of developing the land without giving up ownership. But of course, they had the advantage of owning the land in the first place. The practice of leasing land to the management corporation by those who are employed elsewhere gives them an additional source of income from what would otherwise be cogon land.

(2) A more hierarchical and centralized control of production, processing, and marketing is possible in the plantation. In many ways this will help mitigate the individualistic, "go-it-alone" tendency of the Filipino. As one item in the Business Log of the Manila Times (Dec. 4, 1969) indicates:

"With the successful shipments of Cavendish bananas by two firms in Mindanao - Standard (Phil.) Fruit Corporation and Hijo Farms Inc. - some banana planters, instead of entering into marketing agreements with either of the two firms, plan to do the exporting themselves. A banana industry source pointed out that this attitude of the planters may do the country's banana export industry more harm than good unless planters adopt the scientific methods now used by the two exporting firms. Banana being a perishable commodity and with the Japanese market very sensitive to the quality of bananas exported, a coordinated and possibly centralized exporting procedure should be adopted by all banana producers in Mindanao..."

(3) In the plantation, minimum standards of housing and general living conditions are provided by management; whereas, in the other system, the company's contract with the individual grower is restricted to banana growing. Because the latter also uses hired labour, higher basic wages are paid, but living arrangements are the workers' responsibility. Theoretically they have greater freedom to choose how and where they want to live. However, amenities such as light, water, and housing are not necessarily easier to obtain on an individual household basis than on a community basis.

(4) Given two different organizational systems of production, how does each one contribute to the goals of equity, welfare, productivity, individual freedom, community improvement, higher income, greater social security, greater employment of available manpower, and more effective application of science and technology to the production and processing of bananas for export? Furthermore, who looks after the protection of the environment, which is very much affected by the production process such as aerial spraying, dumping of wastes and rejects? The answers to these questions have to wait for a more intensive study. Meanwhile, one general observation stands out: the notion that traditional subsistence agriculture is a way of life in contrast to modern agriculture, which is a business, is really not a very meaningful distinction. Agriculture pursued as a business is as much a way of life as agriculture for subsistence, but it is a different way of life dictating a rhythm, subculture, and character of its own as is very dramatically illustrated by modern banana farming. Moreover, it is also an example of almost complete technology transfer from the Banana Republics in Central America with its accompanying problems of adaptation and social organization.

Upland farmers and kaingeros

After the initial improvements in the yields and yield potentials of rice, especially in lowland irrigated and even rain-fed areas, much attention or at least lip service is being paid to that group of farmers considered poorest and most deprived - the *upland farmers*. There is an urgent demand for technology that would raise the productivity and income of upland farmers, but so far, not much is known about this category of farmer whose welfare we are lobbying for. Luning's Western Visayas study provides the first systematic empirical information about upland farmers in relation to other types of farmers (220). It is significant to point out that upland farmers raise different crops in an attempt to extract a living from rather unfavourable natural resources for farming. Luning found that on land with a slope of 8-18%, upland farmers, which made up 36% of total farm households in Western Visayas in 1975, tried to grow upland rice, coconut, or sugarcane and engage in a diversified cropping system that combined upland (kaingin) rice, corn, root crops, ginger, bananas, peanuts, abaca, coffee, and coconuts. As cited earlier, productivity and incomes are lowest among this category of farmers. The hectarage devoted to upland farming, with the exception of upland sugarcane farmers (before the fall in sugar prices in 1976), generates only one-quarter of value added compared with that of irrigated farms. Rain-fed farming generates 2.5 times more value added than upland farming. With the decline in sugar prices, income from upland sugar has taken such a dive that many upland sugarcane farmers do not consider it worth harvesting the sugarcane crop.

The characteristics of different groups of farmers in what Luning calls homogeneous agricultural zones (HAZ), which occupy varying slopes of land (lowland, rolling, upland), are presented in Tables 45-49. In summary, the following observations can be made.

(1) Although upland farmers are disadvantaged, they are blessed by the fact that of the five groups (irrigated rice; rain-fed rice; rolling sugarcane/rain-fed rice; upland; and fishing) more of them have land than any other group (83%). In comparison, fishermen are practically all landless (97%), and of the irrigated rice, rain-fed rice, and rolling sugarcane groups, 66, 64, and 54%, respectively, have land. For all groups, only 59% of families have land, 14% are agricultural labourers, 12% are fishermen, and 15% are in nonagricultural labour.

(2) Upland farmers are the most mobile in terms of place of work. They have the highest proportion of the labour force working partly or completely outside the municipality (24%). The least mobile are those in rolling sugarcane/rain-fed rice with 90% working within the barrio. This is made possible by the complementarity in the labour requirements of sugarcane and rice, especially when the agricultural calendar is such that rice workers can hire out their services in sugarcane farming during the off-season in rice production. Because of low productivity, upland farmers are forced to look for off-farm employment. As a matter of fact, they derive most of their income (74%) from off-farm and nonfarm employment. Rain-fed rice farmers followed with 66% of total income from off-farm and nonfarm sources.

(3) The irrigated-rice farmers are the most dependent on their farms for household income. But, less than one-half of total household income comes from rice farming; one-third is derived from off-farm; and 19% from nonagricultural jobs.

(4) Upland farmers derive very low income from their farm but, because most of them have land and use unpaid family labour, whatever income they get is net income. On the other hand, the produce of irrigated, rain-fed, and sugarcane farmers is shared with landlords and hired labour. Despite this sharing and hiring, however, they have higher net returns than upland farmers.

(5) Luning's data likewise show quite dramatically the difference in the labour absorptive capacity of the five farm types. Upland areas are able to absorb 30-80 man-days/ha; rain-fed areas 100-200 man-days/ha; irrigated areas 200-220 man-days/ha; and lowland and rolling sugarcane areas 120-150 man-days/ha, depending on the degree of mechanization. Because upland farmers derive the greater part of household income from off-farm and nonfarm sources, and better irrigated lands absorb even more labour than poorly irrigated ones, further improvements in irrigation systems and increases in the total irrigated area have salutary effects on off-farm employment for upland farmers. The demand for productive upland agricultural technology is not easy to satisfy even with the best of research talents because of natural resource constraints. An alternative approach to improving the lot of the upland farmer is to enhance his off-farm and nonfarm employment opportunities. At the moment he is a very marginal farmer with only 26% of total income derived from his own farm.

(6) Not to be overlooked or underestimated are the pensions and remittances sent to farm families by other members of the household who are working in the city or abroad. It is not unusual to find a good-looking house that is credited to a daughter or son working as a nurse or a seaman abroad. Domestic helpers also send remittances but in much smaller amounts.

(7) Relevant to upland as well as to other less accessible farms is the lower farm-gate prices paid for products because of high transportation costs incurred by traders or by the farmers themselves. For example, the price of rice per cavan (44 kg) in 1975 ranged from P25-30 to P40-45 with the highest prices accruing to farms located near the city (219). Upland farms, therefore, suffer not only from low production; they also receive less for whatever they produce. Feeder roads, therefore, may have more immediate pay-off than high-yielding upland technology, which is so difficult to develop anyway. There would be easier access to schools and both off-farm and nonfarm employment would also be more accessible with an improved road network.

(8) Upland farmers are marginal farmers. They are mainly agricultural labourers and nonfarm workers, and the food crops they grow are predominantly subsistence-oriented.

A farmer who is regarded as a "villain" by protectors of our forests and by environmentalists is the *kaingero*, who is defined as "a person who enters the forest, clears the portion he likes by cutting down all the trees and other vegetation, burns the

area and then plants it to agricultural crops. Later, after the fertility of the area is exhausted, he shifts to another portion of the forest and repeats the same process. The Kaingero is also called *shifting cultivator* or *shifting farmer*" (123). For a portrait of these "enemies" of forest conservation, Duldulao's study provides insights on who the kaingero is and what his perception and attitudes are toward a type of farming that society defines as "undesirable" and illegal. From a sample of 186 respondents who are engaged in kaingin farming in Mount Makiling the following socioeconomic characteristics of kaingeros were observed:

(1) Kaingeros are not much different from rice and corn farmers in age and education. Almost one-quarter have had no formal schooling; their average age is about 48 years; and they have been in kaingin farming for 18 years. A few started as early as 1920-24 and some as recently as 1970-74. Fifty-nine percent of them were born kaingeros (their parents had the same occupation), and about 40% were considered as "forced kaingeros" or those who were forced into this because of lack of other means of livelihood. Their income derives largely or partially from kaingin. Only 3% could be classified as *speculator kaingeros* or those who were engaged in it not for survival but who hoped to be able to get the land released for distribution to its occupants. Although 89% of all respondents gave "no other means of livelihood" as their reason for being in kaingin, 6% said they practiced it for supplementary income, and a few mentioned that it is more profitable than other occupations. When asked about their other sources of family income, 48% mentioned such sources as lowland farming, occasional hired labour, buying and selling vegetables, government or private employment, tailoring, etc. In other words, kaingin farming is the only source of income for more than half of them. Fifty-three percent possess skills such as reforestation and nursery work, carpentry, furniture-making, wood-carving, etc. Only half of them are natives of the place; the other half are migrants who went there in search of a means of livelihood. Kaingin, therefore, is the product of that search. Kaingeros are poor, and in 1974 their annual average family income was P2218, although 63% of the families reported incomes below the average. Average household size is six. They are even more organization-shy than other farmers with only 12% of them claiming membership in the Samahang Nayon. Only one of them belonged to the *Samahan* ng *Magkakaingin* (Association of Kaingeros), whose objective is to unify the kaingeros in one barrio against ejection from their kaingins. It is surprising that only one out of 186 respondents belonged to this organization designed to protect their interests.

(2) Just like other farmers, kaingeros have high aspirations for their children. Two-thirds want a college degree for them; 13% want high school education; 32% want them to have a piece of land; 14% mentioned a permanent house; others wanted a work animal for their children. Obviously the piece of land means kaingin land, and the work animal would be for use in this type of farming. When asked if they had enough means to fulfill their aspirations, only 18% replied positively; the remainder said they would be industrious, work hard, and be thrifty. All of them indicated that as parents they were working hard to give their children a better future and were willing to sacrifice for the future of their children. They would be willing to do any kind of work to earn enough for their children and be willing to forego delicious food to save money for their children's education. Rather optimistically, 65% expected their children to get a college degree; 25% expected their children to be richer and to live a better life; and only 10% expected their children to live the same kind of life they had.

(3) Because of the "evils" associated with kaingin-making, one might think that, if kaingeros knew about and understood the destructive consequences of their livelihood, they would be willing to give it up. Such a thought is really naive for the respondents in Duldulao's study remained unwilling to change occupations despite their awareness and understanding of the consequences. The kaingeros are well aware that all the forest can be destroyed if not properly protected, and the majority of them know that, although man can create forests, it takes 50 years to make a good one. They also know that forests conserve rain water; prevent soil erosion; refresh the air; serve as habitat for wild life; and provide much-needed wood for all building purposes. A large majority perceive the consequences of forest destruction; they likewise recognize the objectives of forest conservation. They suggest that denuded mountains should be reforested and that kaingin-making and log smuggling should be strictly prohibited in order to perpetuate forests. Seventy-two percent agree that government should strictly prohibit kaingin-making, and almost everyone (92%) agrees that the public should be educated on the value of forests. Sixty-eight percent believe that the government is justified in prohibiting kaingin. *Despite this high level of knowledge and understanding, 75% did not want to change their*

occupation. When they were asked to choose among lowland rice farming, swine and poultry raising, government employment in reforestation, or kaingin-making, 45% chose the latter and 44% preferred lowland rice farming. Only a few chose swine raising, poultry raising, or government employment as supplement to kaingin or lowland rice farming. The reasons for choosing kaingin are very revealing explanations for the persistence of the practice: they were born and trained as kaingeros; it is very profitable. Once the permanent crops have grown, the only job left is to harvest the yield. This affords them the opportunity to look for and work on other sources of income. Kaingin crops are for a lifetime. There is no boss in this occupation; any crop can be grown; and little capital is needed.

(5) When asked what the government should do to stop kaingin, practically all their suggestions focused on the need to provide *kaingeros an alternative source of livelihood*. A sizeable majority believe that government and kaingero representatives could sit down and work out a solution to the kaingin problem, but they oppose forced resettlement. More than half of them believe that kaingin is a government problem and therefore the government should find a solution to it. Finally, the kaingeros agree that one should think of his own welfare first before that of the nation.

(6) The kaingeros are multicrop farmers, planting bananas, coconuts, coffee, citrus, and other fruit trees, with rice, corn, root crops, and vegetables planted beneath the coconuts. Of the different categories of farmers, they are the only ones who still predominantly (76%) employ the "bayanihan" (exchange labour) system of working in their kaingins. The others either hire daily labourers or use family labour. Fertilizers, insecticides, and some soil erosion control measures are applied by many kaingeros. Planting materials are obtained mostly from fellow kaingeros.

(7) In general, although kaingeros are poor, they are no poorer and may be a bit better-off than other farmers. They seem to apply more of their own labour on their kaingin. Their particular advantage lies in the minimal amount of capital required and the fact that they have no land rentals to pay. Their earnings from kaingin are practically net income and about one-half have other income sources. Unless alternative means of livelihood are made available, punitive measures alone will not discourage kaingin. The immediate welfare of the family comes before the welfare of the nation. But, this is probably not a peculiarity of the kaingero but rather a more "*universal*" characteristic of the Filipino.

Multiple-crop farmers

Tobacco, rice, corn, sugarcane, coconut, upland, and kaingin farmers are, in many instances, not monocrop farmers. Traditionally, farmers have always tried to grow more than one crop simultaneously or sequentially on the same land for subsistence rather than for commercial purposes. Multiple-cropping, therefore, is an age-old practice of growing a series or a combination of crops best adapted to the land. In traditional subsistence upland farms, a large share of the labour is provided by the farmer and his family members. Much of the agricultural work is performed by hand methods with a minimum of cash input. A traditional upland village studied in Quezon (101), showed that these farmers have no contact with government extension agencies. Farming methods are learned from other farmers, parents, and relatives. About one-quarter listen to radio farm programs. However, some use fertilizer for rice and some are using improved seeds. More than one-half have heard about the Green Revolution and nutrition projects of the First Lady. A handful practice family planning. These farmers, who have an average of 3 years schooling, decide planting dates on the basis of the *Honorio Lopez Calendar*, which advocates that plants become vegetative when planted on Thursdays and Sundays and that plants produce low yield when planted on days of the first or last moon quarter. They, therefore, plant when the moon is full or on starry nights for a bountiful harvest. Other lucky days for planting are Mondays, Fridays, and Saturdays. Their choice of crops to plant is dictated by adaptability to the area, income expectation and availability of planting material. The common cropping pattern practiced is rice, followed by corn, root crops, and then vegetables. Root crops include sweet potato, gabi, cassava, and ginger. Vegetables include cowpea, string beans, mung beans, eggplant, and cadios. In other cases, root crops and vegetables are intercropped between coconuts, coffee, banana, and citrus fruits.

Recently, research and extension efforts have centred on "multiple-crop diversification" to: "(a) improve the intensity of land and labor use; (b) help increase profits; and (c) assist in stabilizing farm income" (311). Although multiple-cropping is an age-old practice, this new interest promises to bring more science, technology,

and economics into the choice, sequence, combination, kind, and quantity of crops grown in a variety of cropping patterns given different topography, climate, ecological conditions, socioeconomic setting, and market demand situations.

Strout groups multiple-cropping practices into two broad categories:

"a. *Sequential cropping*

(1) *Sequential planting* in which the planting of one crop follows the harvesting of the preceding crop.

(2) *Relay planting*, in which one crop is planted in a field prior to the harvesting of the preceding crop.

b. *Simultaneous cropping*

(1) *Intercropping*, in which two or more crops are grown simultaneously in alternate rows on the same ground.

(2) *Interplanting*, in which long-term annual or biennial crops are planted alongside short-term annual crops during early stages of development.

(3) *Mixed cropping*, in which two or more crops are grown simultaneously and intermingled randomly with no row cultivation.

(4) *Interculture*, in which arable crops are grown under perennial crops.

(5) *Adjacent cropping* in which two or more crops are grown simultaneously but on separate plots of land within the same farm or farming area" (311).

By reviewing a number of studies of multiple-cropping under more market-oriented circumstances, a number of observation can be made.

Price in his analysis of cropping patterns and land utilization found that much of the rice and other food produced in Southeast Asia comes from multicrop patterns in which one crop is rice. In their studies of two major rice growing localities in Iloilo and Pangasinan, a rice-rice pattern occupied 5% of the land; whereas, on the rest, a single crop of rice was followed by other crops. Seventy-five percent of the corn, grain legumes, and root crops come from rice-based patterns in Iloilo, and the percentage is higher than that in Pangasinan and Batangas.

Because of the rice-based nature of multiple-cropping patterns, Price found that "new rice technology strongly influences the profitability of growing crops in rice-based patterns through technical relationships that can be categorized as competitive, complementary, and supplementary. New rice technology has increased the supplementarity and complementarity between rice and other crops through varietal characteristics such as early maturity, nonphotosensitivity and short stature. However in very recent years, increasingly short rice maturity has made second rice crops feasible and this is turn has increased the competitiveness between rice and other species as second crops." As a consequence of these technological developments in Iloilo, the rice-rice pattern has become feasible under rain-fed conditions and it has begun to replace the rice-upland crop patterns, which is contributing to a decline in upland crop production (282).

Some farmers are both lowland and upland farmers. In Iloilo, for example, farmers usually possess about a hectare of either contiguous or noncontiguous land in the low plains, which is planted to rice during the wet season. In addition, they have upland fields that are normally not used for growing rice and are left fallow during the wet season. As the main crop, farmers tend to place priority on rice rather than other crops. The growing of upland crops is not a serious farm activity, and therefore it is only given attention after the first rice crop. A land-use study showed that only 2% and 16% of the total land area was planted to corn and grain legumes, respectively (300). Even with multiple-cropping, rice remains the basic and first priority crop.

Cropping systems utilize a substantial amount of hired labour and there are discernible patterns in the proportion of hired labour relative to operator, family, and excnange labour. A monthly report for cropping systems in Pangasinan showed that for July 1976, labour sources for farm work were 34%, operator; 10%, family; 39%, hired; and 17%, exchange. A similar analysis for Oton and Tigbauan, Iloilo, revealed a heavy reliance on hired labour. Of the total man-hours spent on farm labour, farm operators contributed 27%; spouses, 1%; children, 12%; and hired labour, 58%. It was also observed that 75% of the hired farm labour came from nonfarm households. In Batangas, where seven different cropping patterns were analyzed, 63% of the total labour input

was hired; 25% was family; 10% was operator; and 3% was exchange. Furthermore, the shorter the turn-around period (time delay between rice harvest and planting of successive crops), the higher the proportion of hired labour relative to operator and family labour. Conversely, the longer the interval, the higher the percentage of man-hours devoted by the farmer and his family (16, 203, 289).

Cavite farmers represent one group of sophisticated market-oriented multiple-cropping farmers. Land-use patterns include a combination of lowland rice and secondary crops; lowland rice, upland rice, bananas, and permanent crops such as coffee and coconuts; and coffee, vegetables, coconuts, upland rice, pineapple, papaya and other secondary crops, plus flowers (12, 292). In this regard, Cavite farmers in their application of intercropping are probably the most resourceful. They farm at five levels "from the sky to the ground": coconuts, papaya, pineapple, African daisies, and root crops with rumours of marijuana as an "unseen sixth dimension."

Vegetable farmers

A national survey on income and expenditure patterns showed that 30% (40% rural and 12% urban) of 42 986 Filipino households raised vegetables and fruits in 1974 (256). The most popular vegetables raised were the leafy ones such as ampalaya, bean and squash leaves, camote tops and kangkong, malunggay, pepper leaves, sayote tops, pechay, lettuce, mustard, etc. The second most frequently grown were fruit vegetables such as ampalaya, eggplant, gourd, patola, pepper, squash, tomato, etc. Almost 90% of vegetable growing households grew them in the backyard for home consumption. The fact that only 30% of households grew vegetables in their backyard suggests the need for a more intensive Green Revolution campaign, for leafy vegetables alone.

Although many vegetable growers are backyard growers, there are vegetable farmers whose major or only source of income is the raising of vegetables for the market. The Benguet farmer is an example. Hamada studied 139 vegetable farmers in Atok, Benguet, and found that 82% of them cultivated 0.5-2.0 ha; 14% had 2.5-4.5 ha; and only 5% had 5 ha or more. The largest farm was 9 ha. The majority of the farmers owned their land, or if they did not, the farms belonged to relatives or family. All of them managed their farms from planting to marketing. There were no landlords although the six very progressive Chinese gardeners in the community doubled as vegetable agents (middlemen), as dealers in farm supplies, and as financiers. Sixty-two percent of these Atok farmers were functionally literate even if half had only 1-3 years of formal education or none at all. However, 77% of the farm households had literates other than the household head. They are inclined to join special interest organizations like the FACOMA (Farmers' Cooperative Marketing Association), of which 60% are members. Their FACOMA is probably one of the few in the country that has managed to survive since its organization in 1956. An indication of how well they are doing in their vegetable farming may be seen in their high income levels. Only three had incomes below P1000. About 60% received an average of P4480, 33% belonged to the P11 000-25 000 bracket; and 7% had incomes of P26 000 and more. On the whole, the farmers had a mean annual income of P8644, which is high considering that their farms are rather small.

One outstanding characteristic of these Benguet vegetable farmers is their very high media participation. Ninety-five percent listen to the radio; 83% go to the movies in Baguio which is 52 kilometers away; 52% buy newspapers; 49% buy magazines; 65% read newspapers; 58% read magazines; and 55% read other printed media. Their interest in farming information goes beyond farming practices. They seek information on cooperatives, loaning systems, new varieties, market-price fluctuations, and soil analysis. This phenomenon of high media use is attributed by Hamada to the fact that, unlike other groups, the Benguets have no institutions where they can meet everyday, so in effect, they keep to their families and home grounds. Because of this cultural characteristic of living apart and having no neighbourhood talk, the Benguets may be considered loners. They do not enjoy socializing in sari-sari stores, barber shops, etc.; hence they place greater reliance on mass media and "person-mediating" sources(such as extension workers). Seventy-one percent mentioned speaking to the latter source at least once. These "person-mediating" sources of farming information are exclusively commercial agents with the exception of personnel from the Mountain Province Development Authority (165). This particular group of vegetable farmers are very modern and market-oriented. Their produce is brought to Metro Manila and is commonly known as Baguio vegetables.

Certain parts of Misamis Oriental and Bukidnon are also emerging as "vegetable bowls" because of favourable climate. A small study in Bukidnon showed that, unlike

Benguet, where vegetable growing is a major occupation, 75% of the vegetable farmers had other employment and worked on their farm only during off-hours from regular jobs. The area planted to four types of vegetables (tomato, Irish potato, cabbage, and beans) covered 0.1-0.4 ha. The high marketability of their crops is evident from the fact that only 1% of the tomato harvest, 2% of the potatoes, 3% of the cabbage, and 4% of the beans are left for home use. The rest are sold after seeds have been set aside for the next planting. Because vegetable growing for them is only a sideline, work is done primarily by the operator and his family. However, some farm workers provide labour and receive their share in cash after marketing (99).

In general, vegetable growing takes place in three circumstances: *backyard* for home consumption; *intercrop* in a multiple-cropping system; and *commercial-market-oriented* where vegetables are the major crop. The latter is quite sophisticated and usually specializes in so-called "society vegetables" such as cauliflower, cabbage, Chinese pechay, Baguio beans, sweet peas, American tomatoes, carrots, sugar beets, celery, Irish potatoes, head lettuce, etc. Because of the perishable nature of these vegetables, marketing is of crucial importance. Vegetables as intercrops or secondary crops are also marketed, but they are usually not the major source of income.

Livestock farmers

Although livestock farming absorbs only a very small proportion of the total number of people employed in agriculture, the livestock subsector accounts for about 20% of the gross value of agricultural production. But what is more significant is the rather widespread practice of raising poultry or livestock. Forty-three percent of Filipino households (53% rural and 26% urban) raised poultry or livestock in 1974 (Table 50); whereas, only 30% grew vegetables. Many of the livestock-raising households were probably taking care of pigs, chickens, etc. on a largely "self-supporting" system, i.e. the animals fend for themselves on a few leftovers, scraps of food from the kitchen, and grains from the farm. Almost one-half of the households raised the animals for home consumption; 22% for commercial purposes; and 28% for both (Table 51). Most frequently found among these households were chickens and ducks, 55%; pigs, 34%; eggs, 18%; and carabao, about 9% (Table 52). It is interesting that pig-raising was slightly more popular with the urban (40%) than with the rural households (30%).

Although much of the research on agricultural development has focused on happenings in rice, a great deal of modernization has taken place in the swine and poultry industry. Imported and upgraded breeds of swine and poultry have found their way not only to commercial farms but also to small backyard operations; however, native pigs and chickens are still very much in existence, particularly in the less developed parts of the country.

Swine and poultry farmers

The results of the Bureau of Agricultural Economics and Bureau of Animal Industry joint survey on livestock and poultry showed that as of 1 January, 1976, the hog population was 6.4 million, of which 9% were on commercial farms and the remainder were in backyard operations. The centres of commercial hog production are Southern Tagalog, Central Luzon, Southern Mindanao, and Central Visayas, mainly Cebu. They are located near population centres and sources of feed. As a matter of fact, some of these units are integrated with milling and other agricultural enterprises and use the by-products as feeds. Sophisticated technology and management are practiced, including modern housing adapted for tropical conditions. The leading regions for backyard operators are Cagayan Valley, Northern Mindanao, Central Visayas, Central Luzon, and Southern Tagalog.

Commercial poultry production accounts for 20% of the total chicken population of 46.5 million, including broilers and layers. The rest are found in backyard farms. The commercial poultry establishments are concentrated in Southern Tagalog, Central Luzon, and Central Visayas. Eleven large firms are engaged in broiler and egg production. One of them runs a completely integrated complex (feed mill, breeding farm and hatchery, production units, processing plants, and retail outlets). Most of the other large firms have feed mills and their operations have been integrated to different degrees. Although native hens have always sat on their eggs to hatch them, in modern poultry production 19 commercial hatcheries are currently in operation with a total estimated incubator capacity of 14 million eggs. As an illustration of direct technology transfer from abroad, there are breeding farms operating under franchise with the best American and Canadian broiler and egg strains. Breeder chicks are regularly imported for grandparent and parent stock.

Commercial broiler farms, which maintain high standards of housing, feeding and management, produce about 30% of the country's supply of poultry meat. The heaviest concentration of broiler production is found near the feed mills in Central Luzon, Southern Tagalog, and Cebu.

Specialized egg production units, which reportedly supply 75% of the nation's eggs, are concentrated around Greater Manila and Cebu. Again, as in broiler production, foreign strains like White Leghorn are used for egg production. At 18 months, the layers are used for poultry meat (40).

Some smaller swine and poultry raisers are able to participate in these large commercial enterprises via a system of contract growing. Chicks, weanlings, feeds, veterinary, and technical services are provided to contract growers. At the proper age, the broilers and pigs are bought back by the company. These arrangements help solve the marketing problems often encountered by individual growers.

Ulep's 1975 study (328) of 50 swine and 50 poultry farms gives us a picture of the manpower situation in these commercial farms where job descriptions are highly specialized and some of the jobs require high levels of competence. In swine production, job titles include utility worker, farrowing caretaker, growing caretaker, finishing caretaker, breeding caretaker, feed mixer operator, foreman/technician, manager/assistant manager, and farm veterinarian. In poultry production, manpower includes utility worker, flockman, egg collector, egg sorter, mortality collector, egg cleaner, dolyman, feed mixer operator, foreman/technician, manager/assistant manager, and farm veterinarian. The ratio of workers to animals is 1 per 9 sows; 1 per 5000 birds; 1 per 16 000 in broiler farms; 1 per 3000 in hatchery farms; and 1 per 3500 in egg farms. Farm size ranged from 50 to 2000 sows and from 1000 to 2 million birds.

Of the farms studied, 70% had been in operation for less than 10 years, suggesting the recency of these establishments. There are two types of workers employed in these farms; low-level, who are below high school graduates; and high-level, who include those with high school and college education (one-half are college graduates). The workers are young and are relatively new in their jobs with an average age of 27 with 3 years service for high-level workers and about 18 with less than 2 years service for low-level workers. The majority of the high-level workers come from outside the town, province, and region of employment, but, on the other hand, almost one-half of the low-level workers come from the town of employment. The modernity and industrial or factory-orientation of these farms is evident in the fringe benefits and incentives that are provided to workers, such as: subsistence allowances, housing bonuses, commissions on the sale of products, medical benefits, school privileges of children, transportation allowances, product privileges, and achievement awards. In-service training activities of different kinds are also conducted for the workers, such as: seminars, workshops, lectures, on-the-job skill instructions, observation tours to local farms and occasionally abroad.

Because there are both *high-level* and *low-level* workers, as well as the *owners of commercial* poultry and swine farms, Divinagracia suggested that it is important to distinguish *managerial* from *manipulative skills*, with the high-level group requiring more managerial skills, including economic analysis of the enterprise and personnel management (119). Manipulative skills are a must for those who do the actual caring for the animals. A third type of competence or ability involved in these farm enterprises is the *entrepreneurship* of the owner, without which there would be no farm.

Jaime provides us with some characteristics of market-oriented but smaller swine farmers (188). They have higher education (an average of 10 years) than rice and corn farmers. As a matter of fact, 42% of the swine raisers studied in Laguna are college graduates, although only two of them have degrees in agriculture. The rest had Bachelor's degrees in Arts, Business Administration, Commerce, Education, Engineering, Law, and there were also three medical doctors. Twenty percent of the swine raisers are females whose husbands are either government or private agency employees or are engaged in other business enterprises. About 74% of them derive less than 50% of their income from swine raising, and only 20% derive 50% or more from this enterprise. Therefore, the majority of the swine raisers have a white-collar occupation and are engaged in the enterprise as an additional source of income. About 75% of them produce both market hogs and weanlings; 43% are members of the swine producers' cooperative; 76% manage their own enterprise; only 16% hire project managers; 30% take care of their animals by themselves; and 34% hire others, while the rest use family members as well as hired helpers. The project managers have, on average, 11 years of education, and more than one-half of them are college graduates. The caretakers of the animals average 6 years of education and

are much younger (24 years) than the proprietors who are about 45 years, and the managers who are about 32. For an initial investment, 64% of the enterprises had less than P10 000; 3% started with P50 000 or more. Eighty-nine percent were aware of credit facilities in the locality, but only 59% have actually borrowed from the rural bank, Development Bank, or Philippine National Bank, with 82% of those who borrowed money investing the loan in expanding their piggery project. Most of the hogs are sold directly to butchers at the local market on a per kilogram live-weight basis.

Practically all these swine raisers use commercial feeds either solely or in combination with kitchen refuse or feeds they themselves mix; 44% use artificial insemination; 83% raise Large White Breed; 89% practice early weaning of piglets; 95% use iron compounds; and 94% submit their animals to immunization. The relatively low adoption of artificial insemination is attributed to low conception rates. Another index of their modernization is the relatively short time lag between awareness of a modern practice and its actual adoption. The use of iron compounds took less than a year; early weaning of piglet, 1.81 years; hog immunization, 1.71 years; use of Large White Breed, 1.47 years; and artificial insemination, 3.62 years. The latter practice, which is the least adopted, also tended to be the last adopted. The *individual extension approach* (particularly farm visits by change agents from the Bureau of Animal Industry and agricultural schools, office calls, technical consultations, and service calls) consistently ranked first in importance as sources of information about these five recommended swine productions practices. This was followed by *group approaches* such as demonstrations, seminars, lectures, and farmers' classes. The mass media, radio and printed matter, was of lesser importance. What is interesting is that the individual extension approach was mentioned more by swine raisers who only had elementary education; the group approach was cited more by those who reached high school; while the mass media was mentioned more by the college educated. Although the individual extension approach was ranked first in usefulness, there was not much contact between the change agents and the farmers.

Divinagracia in his study of backyard (500 birds or less) and commercial poultry raisers (more than 500 birds) found that 40% of the backyard ventures were one-man operations; whereas, more than 90% of commercial setups used hired help or members of the family (119). As in Jaime's observations, the secondary, supplementary, or part-time nature of swine and poultry raising is likewise manifested among the livestock and poultry raisers of villages in Pila and Victoria, Laguna, where this is only one source of income - 47% of 356 livestock raisers are also rice farmers; 27% are blue-collar workers; 14% are white-collar workers; and 11% are proprietor-managers (329).

Swine and poultry raising, particularly for the operator himself, his wife and children, is more significant as a reducer of underemployment and less as a direct absorber of additional manpower. Even for the modern, large commercial farms, the ratio of worker per animal cared for is not very high because one worker is responsible for so many birds and so many pigs.

Cattle and carabao farmers

Although beef is not the preferred meat of Filipinos, there is a tendency for per capita beef consumption to increase as per capita disposable income increases (11). As of 1 January, 1976, there were 1.72 million cattle in the Philippines, and of these 23% were raised on commercial farms concentrated in Northern Mindanao, Bicol, Southern Tagalog, Central Visayas, and Southern Mindanao. Only 8.6% of all farms have 400 or more head; 26.5% have a herd of 101-399; 28% have 51-100 head; and 37.3% keep 21-50 head. The provinces that have the most commercial farm cattle are Bukidnon, Mindoro Occidental, South Cotabato, and Misamis Oriental. Backyard cattle raisers are concentrated in Southern Tagalog, Ilocos, Cagayan Valley, and Northern Mindanao. The leading provinces in this backyard cattle raising are Pangasinan, Cebu, Batangas, Negros Oriental, and Iloilo.

De Guzman studied 103 *dual farmers* who *raised beef cattle under coconuts*, in nine Mindanao provinces. Their farms ranged in size from 4.5 to 750 ha. The average farm was 107 ha, had 87 cattle per farm, and used 82 ha under coconuts as pasture. The livestock contributed 12% of the total farm income without any government support. Ninety percent of the labour input was paid and only 10% was unpaid family labour, but 74% of the total labour was used for the establishment and maintenance of the coconut plantation. Modern agricultural practices received insignificant attention in all of the farms surveyed. In fact, 80% did not have improved pasture, and basic approved cattle husbandry practices were unknown to at least 80% of the farms. The Philippine Coconut Administration had extended information about coconuts but not about cattle. Improved pasture

grasses were available in other farms but were not used. Calving percentage differed in different places. Although the average is 69.2%, it was 54.1% in Cotabato and 80.3% in Agusan. The latter had only 19 animals per farm and had better supervision; whereas, Cotabato had 72 per farm and less supervision. Relevant to this is the observation that the tenants in these farms prefer to plant corn rather than to take care of animals because the corn produce is practically all theirs. A more effective incentive system for raising cattle is, therefore, necessary (104).

The 2.7 million carabao are mostly concentrated in Cagayan, Isabela, Iloilo, Zamboanga del Sur, Nueva Ecija, Quezon, Bohol, and Camarines Sur.

Because 77% of total cattle population and practically all the carabao are backyard-raised, we would like to know more about the people who take care of them. Ocampo (1974) studied 1747 backyard livestock raisers from 122 barrios in 14 Laguna municipalities (250). The average respondent was almost 48 years old; had 4.5 years of education (21% had no formal schooling at all); and had lived in the municipality for more than 38 years. Forty-two percent were members of local organizations such as the Samahang Nayon and the Selda. Three-quarters of them were crop farmers (mainly rice and coconut) and were share tenants or lessees. Only 12% were owner-operators. Sources of income were crops and/or animals and nonfarm sources. Almost 90% owned the carabao themselves, but only 50% owned the cattle. *Apparently share tenancy applies not only to use of land but also to livestock.* The *paiwi system* refers to an animal sharing arrangement whereby a person takes care of a female/male animal for another person. With female animals, the terms are that the first offspring goes to the livestock raiser, the second to the owner, and so forth under an alternating system. When the male animal is sold, the capital or financing money is returned to the owner. The profit is then returned to the owner who divides it equally between himself and the caretaker.

On the average, carabao raisers have had 21 years of experience, but cattle raisers have had only 10 years because they are more recent. Carabao, which are used as work animals, are more prevalent in the rice-growing areas and cattle are found on the coconut farms. The most common animal feeding practices are tethering and soiling. *Tethering* refers to the animal raiser "riding/going" with the animal as it is pastured, which is a typical scene in the countryside. *Soiling* refers to grass being cut by the animal caretaker and fed to the animals which are kept in one place. These two practices are most beneficial to the animals as they are able to graze in selected areas and are given supplemental forage. However, both methods are time and effort consuming. Seventeen percent simply tie the animal or let it loose to fend for itself. The destructive effects on crops of such a practice are very obvious. Less than one-quarter of all livestock raisers give supplemental feedings, mostly of bran. The major objection to supplemental feeding is the cost involved, but some consider the supplement unnecessary. Ninety-eight percent of the carabao and 87% of the cattle raised are native breeds. Improved breeds are quite rare. Seventy-eight percent of carabao raisers and 59% of cattle raisers do not provide housing for their animals. One-third of these livestock raisers have had experience in milking animals.

When asked for their preferred system of dispersing animals, if an animal dispersal scheme were to be carried out to increase the cattle and carabao population, the majority of the respondents (68%) chose the individual rather than the organization to be the recipient. The 28% who preferred the latter selected the Barrio Council rather than the Samahang Nayon. When given a choice of how to acquire an animal for raising, 58% chose the *paiwi* (the share tenancy system in livestock production); 22%, outright, loan in the form of animals; and 18% cash loan purchase of animals. The sharing system minimizes the risk for the livestock raiser. As potential cooperators in a milk collection scheme to encourage backyard dairying, they expressed a willingness to use veterinary services, undergo training, upgrade animals, use concentrate feeding, and develop pastures. Although their attitudes toward these innovations were all positive, pasture development and concentrate feeding were not as well favoured as the others. Everyone welcomed veterinary services. Whether these favourable attitudes will be translated into positive action remains to be seen.

Unlike swine, poultry, and beef cattle, commercial dairy farming in the Philippines is rare. The only significant venture is the 125 ha Magnolia Dairy Farm in Cavite which has a total population of 1191 head. Their total milk production is sent to the Magnolia Products Plant for further processing before marketing as fluid fresh milk in bottles (130). Although Philippine imports of milk and milk products is second only to wheat and has increased from $43.7 million in 1971 to $82 million in 1974 and $68 million in 1975,

the dairy industry has never received as much attention as other livestock. Since backyard cattle and carabao exist mostly in the care of crop farmers, a second strategy for dairy development has been attempted recently with the setting up of milk collection schemes using carabao and/or cows which could be milked during certain stages of their life cycle. These schemes have been set up in strategic places such as Alabang, Muntinlupa, Rizal; Cabanatuan City; Floridablanca, Pampanga; Sta. Maria, Bulacan; San Jose City; Sorsogon in Sorsogon; and the Los Baños Milk Collection Scheme of the Dairy Training and Research Institute of the University of the Philippines at Los Banos, which collects milk from more than 500 small farmers from nearby areas of Laguna, Batangas, and Rizal (36, p.1).

Diversified farmers

Crop farmers, even those involved in multiple-cropping, are more than crop farmers. As revealed in the analysis of weekly cash flows, made at the International Rice Research Institute: They found: "critical financial linkages among the farmer's crop, his livestock and his household needs. For example, farmers often sell livestock at planting time to purchase needed inputs" (186). It is, therefore, apropos to look into *farming systems, not just cropping systems.* It is even more realistic to consider both the farm and the household in assessing their operations.

For a more "personal" glimpse of the *diversified farmer,* the Batangas farmer is a most versatile example. As shown in the Guerrero study, land is planted throughout the year; rice is grown once a year, generally for home consumption, and vegetables for daily expenses. Other cash crops are corn, fruits, and garlic. The latter is a favourite crop because it can be stored under the house to be sold on a "rainy day" or when the garlic supply in the market is scarce. Money from it is spent for children's education or emergency purposes. His business consists of raising poultry and hogs, and buying and selling farm products. He usually buys a cow, fattens it in his backyard, while at the same time using it on the farm, and later sells it at a profit. The Batangas diversified farmer has the unique capacity to shift from one enterprise to another when it becomes "uneconomic". He is a personification of the phenomenon "conspicuous investment" rather than "conspicuous consumption." It would not be surprising for him to opt for a hog house rather than improvements in his own home, until such time that he could afford a so-called "dead investment" in his house from the profits of the hog enterprise. It is standard practice to use fertilizer which was introduced before the war. Fertilizer is considered essential to farming and is a major item of expense, for without it the farmer expects poor harvest. The only limitation to its use is the availability of funds. The more fertilizer is applied, the higher is the expected yield. Insecticides are also sprayed, especially on vegetables which are grown mainly for the market, The Batangas farmer is also very conservative in his use of the bank for credit. He would rather go to the next town or city to obtain a bank loan and use as collateral a land title which is either his own or borrowed from parents or relatives (159).

Tables 53 and 54 show the combinations of crops and livestock raised by farmers from Bulacan and Batangas. The data show that the *pure-rice* farmer is *nonexistent*, even in predominantly rice-oriented Bulacan. Less than 5% raised both rice and corn. More than 95% raised some kind of livestock (chicken, swine, cattle) in combination with the major crop. Legumes and other vegetables were also commonly grown although leafy ones were not popular. Two-thirds raised swine and about three-quarters had chickens. The carabao is more prevalent in Bulacan than in Batangas farms, but swine, cattle, and root crops are found more in the latter. Batangas farms show considerably more diversification than those in Bulacan, although practically all of them grow rice. All these crops and livestock have a particular role to play (additive, complementary and supplementary) in the total income from the farm and household. The diversity spreads out the risks in farming and takes advantage of whatever adverse or favourable circumstances the physical and economic environment offers. It is the sum total of all these products from the farm in combination with off-farm and nonfarm sources which determines the survival and well-being of the farm household, especially in a country where natural calamities take their periodic toll of potential or actual harvests.

The other categories of farmers

There are other types of farmers such as the abaca, the mushroom, the fruit farmer, etc., but lack of studies and information about them precludes their discussion here. But the most glamorous of all farmers is the ornamental garden grower, perhaps

best represented by the society matron who grows plants and flowers for pleasure, money or both, and the gardeners just at the outskirts of Metropolitan Manila who grow and sell potted plants, flowers, carpet grass, etc. There is much to be said for growing orchids, African violets, anthurium, crotons, both for beauty as well as economics. It is fascinating to watch housewives and their children tending their plants and even more intriguing to observe the affluent buy these plants to landscape their front lawn or add touches of green to their interior decor. Ornamental plant gardening is labour intensive and, if a profitable market were available, has potentials for providing some employment for out-of-school youth.

SUMMARY AND CONCLUSIONS

The farmer, who is often referred to as "the backbone of the nation", is always assumed to be the target of our development efforts. But who is the Filipino farmer? In order to gain knowledge and a better understanding of our farms and farmers, this chapter describes: the general farm situation with respect to agricultural land utilization, employment, farm size, and land tenure; the characteristics of farmers as a general occupational category; and portraits of specific farming groups.

The General Farm Situation

Agricultural land utilization and employment

In terms of crop area harvested, more than twice as much hectarage is devoted to food crops as to commercial crops. Rice and corn lead the food crops and coconut dominates the commercial ones, followed by sugarcane. Over a 7-year period (1966-73), rice and corn crop areas and also vegetable and root crop areas have remained practically the same. Citrus, cacao, and abaca have dropped although the latter registered some recovery in 1973. The largest expansion was in sugarcane, followed by coconuts, in response to a sugar boom. But the current sugar slump will probably cut back the area devoted to it. Sugar, coconut, and abaca are subject to the whims of the international market.

Another characteristic of crop production is the tendency toward *localization* or *specialization* of certain crops in certain areas. Tobacco and sugar exhibit the highest degree of localization in Ilocos and Western Visayas, respectively. Commercial banana and pineapple production is centred in Northern Mindanao, while coconuts are rather rare in Ilocos, Cagayan Valley, and Central Luzon. Root crops tend to be concentrated in regions with low development indices such as Eastern Visayas, Mindanao, and Cagayan Valley. Rice production tends to be more dispersed in different parts of the country although certain areas have more of it than others.

Land utilization patterns have their corresponding effects on farm employment. More than three-quarters of the total employment in crop farms is in rice and corn production. Coconut workers make up less than 10%, and sugarcane farming, despite all the social attention it receives, employs only 5% of the labour force in crop production.

Farm size

Almost two-thirds of all Philippine farms are less than 3 ha; hence the majority of Filipino farmers are small. However, the 15% of farms which are 5 ha or more make up 52% of total farm area. Hence, although the majority of the farms are small, the few "large" farms occupy a sizeable portion of total farmland. This concentration of area in larger farms is prevalent in pineapple, banana, coconut and sugarcane plantations, and cattle ranches. Tobacco and vegetable farms are the smallest of all. Root crops, corn, and rice farms are more "medium" in size.

Land tenure

Almost 70% of all farms are fully or partly owned by the farm operator, while 29% are under different types of tenancy. In terms of farm area, 73% is fully and partly owned and only 20% is under tenancy. Only rice and corn are covered by land reform, and consequently only 13.2% of total farm area and 21.9% of total number of farms are subject

to land reform. Because more than one-half of tenanted rice and corn holdings are 7 ha or less and are not likely to be included in the operation land transfer to the tenants, the total effective hectarage for redistribution could only be less than 10% of total farm area. In this sense, land transfer is not likely to shake up drastically the prevailing patterns of landownership and is not likely to result in a major income redistribution, especially because landlords are compensated anyway.

With respect to tenure status of different crop farm areas, rice and tobacco have the highest percentage of hectarage under tenancy. Areas planted to pineapple, cattle ranching, sugarcane, and bananas are operated more under a "manager" system than other crops.

Land tenure situations differ by region and province. Central Luzon exhibits the highest incidence of tenancy, followed by Southern Tagalog, and Bicol. The regions with the least tenancy are Ilocos, Mindanao, and Eastern Visayas. Fully and partly owned farms are larger than tenanted farms, but the largest are farms under "management." Since ownership of land is regarded as an important tool for improving the lot of the farmer, the relationship between farm ownership and income levels was examined. The correlation between the percentage of farm area in each province operated by full owners and the percentage of low-income families in each province is a positive one, which suggests that higher incidence of farm ownership does not necessarily mean less poverty. On the contrary, Central Luzon which has the lowest percentage of farm ownership also has the lowest percentage of low-income families. On the other hand, Bicol, Eastern Visayas, and Northeast Mindanao have higher farm ownership but also have poorer families. Obviously, in provinces with a very high proportion of farm ownership but with a high degree of poverty, land reform will not solve the problem. Other development strategies must be applied.

Characteristics of farmers as a general occupational category

Among all the occupational groups, the category that includes *farmers, farm labourers, fishermen, hunters, loggers, etc.* registers the highest *incidence of poverty.* They receive the *lowest incomes* and are also the *least educated.* A major aspect of the serious inequality in our income distribution is the *large discrepancy between the average incomes of farm families and those of nonfarm families.* The average farmer is almost 44 years old; has resided in his province for more than 33 years and has farmed for 19 years. Average schooling is 5 years. Farm wives have more children (6.5) than nonfarm wives. Most farmers do not want their children to become farmers. They want them to have college education as a way out of farming. Agricultural manpower, therefore, is likely to remain a reluctant manpower for some time to come.

In trying to comprehend the farmer as a farmer, we must start with the basic notion that farming is basically a physicobiological process. His farming situation is affected by a number of surrounding circumstances such as: suitability of land for production; source and amount of water available; intensity and diversity of cropping; vulnerability to the whims of nature; accessibility of farm and home to development services; tenure status and tenure relations; type of landlord; access to other income sources and number of land parcels to cultivate. Farm size is only one factor and so is tenure status. Each one by itself does not mean much.

The ubiquity of geography and of the physicobiological factors in agriculture is illustrated in the empirical test of the hypothesis that the *homogeneous agricultural zone* (H.A.Z.) is the *single most important element which helps to explain technical and socioeconomic patterns* in this sector. The five agricultural zones identified are: irrigated lowland rice areas; rain-fed rice areas; upland areas proper; rolling sugarcane/rain-fed rice areas; and fishing barrios. Associated with these zones are different topographic slope categories. It is found that cropping patterns, income levels, productivity, tenure status, labour force participation, household size, and education are significantly related to the H.A.Z. which is characterized by different slope categories, with the lowland areas being better off in many ways than the upland areas.

Portrait of specific farming groups

Rice farmers

The rice farmer, who is the most predominant and most important of all our farmers, is a small farmer, with 70% of them operating less than 3 ha. In terms of number of

farms and farm area under tenancy, the majority of rice farmers are full and part owners. Only about one-third are tenants. One-half of the rice farmers can be regarded as full-time farmers; about one-fifth are rice-farmer-cum-hired-farm-labourer; almost one-quarter are rice-farmer-cum-nonfarm-worker; 5% are rice farmer-cum-farm and nonfarm worker. Rice farmers are also in the process of becoming farm managers/supervisors rather than actual tillers of the soil. Many studies have shown that the use of hired labour rather than that of family and farm-operator has increased considerably and exchange labour has practically disappeared.

The majority consider themselves below average, poor, and very poor in terms of socioeconomic conditions. They are dissatisfied with their livelihood, but they continue to farm because they have little or no alternative means of earning a living. Many rice farmers are net purchasers of rice and almost two-thirds to three-quarters of their income is spent on food. Compared with other occupations, the farmer has a lower calorie intake but a higher calorie expenditure. Although gambling and drinking are indulged in by some farmers, the average rice farmer is not a cockfight habitué. The stereotype of the rice farmer splurging much of his money on fiestas and other recreational activities finds little support from empirical evidence.

In spite of predictions to the contrary and despite their poverty, minimal schooling, small farm size, share tenancy status, and many rain-fed farms, rice farmers have responded positively to the new rice technology; in less than 10 years, 62% of the total rice area in the country has been planted to the new rice varieties. Rice farmers, therefore, cannot be accused of being traditional, resistant to change, and unwilling to take risks and, for this unexpected response, they have been dubbed the "miracle men" of the decade. However, actual yields lag considerably behind experiment station potentials. The situation is characterized by high awareness of yield-increasing technology, high adoption but low level of technical knowledge, and consequently a high incidence of incorrect use of inputs. They learned very quickly to use institutional credit for production purposes but loan repayment has remained a serious problem. Rice farmers are also "slow joiners" of organizations intended for their welfare. They seem to prefer to act on their own as individuals or as family. Even the Samahang Nayon movement has yet to establish itself as a viable approach.

The land reform program, which was expected to contribute to the twin objectives of equity and productivity, has fallen short of expectations on both counts. Share tenants were found to be as innovative and as productive as owner-operators. Change in tenure status per se has neither hurt nor improved productivity. Since the majority of landlords are small, there is not much land to redistribute. Furthermore, there are share tenants who prefer the old system because the risks are shared with the landlord. But regardless of these shortfalls, changes in social structure are in evidence and "land reformed tenants" have actually severed ties with the landlords, and increased shares of the harvest have accrued to them. They have also become "their own boss" and many former tenants are on their way to landownership. The most intriguing development is the emergence of "*landlord-farm managers*" among the new landowners who do their farming via hired labour. Although this could have positive employment effects for the landless, it makes a mockery of the "land-to-the-tiller" policy.

Corn farmers

Corn is second to rice as a major staple crop, particularly in the Visayas and Mindanao. About one-fifth of our population are corn-eaters with the highest proportion of them being in Eastern Visayas. Corn farmers are similar to rice farmers in age and education; they also have small farms which are mostly fully and partly owned. Only one-fifth of the corn area is tenanted; hence there is even less tenancy in corn than in rice. Again, there is not much corn land to redistribute under land reform.

More than half of all the corn produced is consumed on the farm and many corn farmers are subsistence-oriented. Furthermore, corn plays second fiddle to rice in land allocation, especially in irrigated areas. In other words, if rice can be grown in an area, farmers would plant rice rather than corn; hence corn is grown in many marginal and upland areas. In the latter, corn is grown mainly for home consumption. Many corn farmers also grow rice, with either one being a major or a minor crop.

The corn farmer lags considerably behind the rice farmer in adopting new technology. Only 10% of corn areas are using the new corn varieties. So far all available evidence indicates that, on the basis of existing cost of production, yields, and government support

prices, corn growing is not a profitable enterprise. At best, it is only marginally so, even with the application of modern inputs. Substantial labour is hired even when purchased inputs are seldom used. Corn farmers have minimal exposure to corn production expertise and little use of modern cultural practices. The increase in the volume of corn production can be attributed mainly to hectarage expansion rather than improved productivity per hectare. The native varieties grown with minimal inputs are still preferred. Apparently, our corn farmers have yet to be persuaded that available corn technology is high-yielding and economically profitable.

Coconut farmers

The Philippines is the largest coconut producer in the world and leads all other countries in the production of copra, coconut oil, and desiccated coconut. Although the area planted to coconut has doubled from 1960 to 1970, productivity per tree has declined and so has productivity per hectare. One reason for the yield decline is senility, which means that most trees are old and decreasing in productivity. Because of the "lifetime nut-bearing capacity" of the coconut tree, coconut production and copra-making have not changed much through the years. The quality of the product is poor and low farm incomes are the results of low prices paid to copra which is the end-product of most coconut production. The majority of coconut farms are fully owned. The incidence of tenancy is only 16% of coconut area. Sharing arrangements are determined by the method of crop disposal, whether by *contract sale* of nuts from the tree, by *husked nuts*, or by *copra*. A small share goes to the tenant-caretaker under the first two methods. When coconut is sold as copra, he receives as much as 50% because more labour is involved in copra-making. Tenant-caretakers live on the farm. They have a share of, or are given all, the products from secondary crops; they keep all the vegetables they raise; and they are paid per tree replanted.

Because coconut is a cash crop, patterns of selling copra determine to a large extent how much is earned from the products. There are three kinds of copra buyers: *barrio buyers*, *town traders*, and *exporters*. The buying process progresses from farmers to barrio buyers to town traders and then to exporters. At the barrio level, copra-buying is competitive, not in terms of price but in extension of credit and advance agreements. An estimate of profit distribution per 100 kg of copra shows that tenants receive about one-quarter; the buyers receive about the same; and the landowner receives a little less than one-half.

Because of the nature of coconut production, the official definition of coconut farmer takes into account the *non-soil-tilling* character and the *processing* component of coconut farming, and acknowledges those who are engaged in these functions as farmers. The hired farm labourer, therefore, is considered a coconut farmer provided he is paid in the form of nuts or copra, which he is free to dispose of. In the case of rice and corn, this type of worker is not regarded as a farmer even if he is paid in kind. The most common types of coconut farmers are the farmer owner-operators and the tenant-caretakers. Unlike tenant rice farmers, the latter do not exercise much decision-making. Their job is mainly to guard and check the coconuts. The majority seem to be satisfied with their sharing arrangements. The average coconut farm is 4 ha; but, because less than one-third of the farms cover almost two-thirds of total coconut hectarage, some farms are rather large plantations, especially in Mindanao.

The coconut farmer is mostly a part-time farmer with secondary activities either in coconut or noncoconut related occupations. Other crops such as rice, fruits, coffee, vegetables, root crops, and bananas are grown on coconut farms. Only about one-quarter depend solely on their own labour. Family and hired labour are used by the majority. The average coconut farmer has been operating his farm for 21 years and has been processing copra on his farm for 18 years. Compared with rice growers, the majority of coconut farmers appear to be content with this type of farming and consider coconut a superior crop. Very few are dissatisfied with being a coconut farmer. Doubtless their favourable assessment is related to the "lifetime" benefits from the coconut tree which requires little care and input. In general, it seems that coconut farmers are in a state of contentment, a happy medium where they are neither terribly dissatisfied nor completely well-off in their livelihood. "Neither rich nor poor" is an accurate description. Although they recognize farm problems and see changes in farming practices as a solution to these problems, hard work and saving money are mentioned more than adoption of farming practices as the means toward achieving their aspirations in life. God's will is regarded as important in successful farming and this is reflected in the fact that

they do little or nothing at all to the coconut tree, except in the larger plantations run by more modern management practices in Mindanao.

Sugarcane farmers

To many people, the sugar industry is the epitome of social inequality with the hacendero at the top and the "exploited" sugar workers and sacadas at the bottom. Traditionally, a great deal of power and influence has been attributed to the sugar bloc and the plight of sugar workers has always been a dramatic object of liberal social reformers. The sugar industry is in fact privileged. The percentage of loans which went to sugar in 1975 amounted to 57% of total agricultural loans; whereas, rice, corn, and feedgrains received only 16.2% despite the intensified programs in rice and corn production. The pampered status of sugar is derived from their dollar earnings - about one-quarter of our foreign exchange. But despite two centuries of sugar exportation, our sugar industry suffers from low productivity, inefficiency, and has the second highest cost of production in the world, which makes it difficult for us to compete in the world market. For 27 years, the national average yields have changed only slightly. Although 70% of sugar farms are small, the stereotype of the hacendero is perpetuated and substantiated by the fact that 5% of the farms 50 ha or more make up 66% of total sugarlands. The average farm size is 14 ha. The tenanted area, however, is only 16% of total hectarage; hence land reform would not redistribute much.

In terms of productivity, innovativeness, access to resources, management, tenure status, labour absorption, and wage rates, farm size is an important factor, with the advantages found in the larger farms. Many rain-fed and upland sugar farmers, like rice and corn farmers, have other occupations. They do not depend solely on sugar farming as a source of income.

To perform all the functions essential to sugar production, there is a hierarchy of eight layers of sugarcane growers which starts at the top with the (a) *hacendero*, the planter himself who is ultimately responsible for farming operations; (b) *administrators*, professional group of sugarcane growers found in medium and large farms; (c) *encargado* or overseer; (d) *cabo* or timekeeper foreman to whom workers report for assignments; (e) *permanent workers or dumaans* - regular staff who reside in hacienda year-round like the cabo; (f) *temporary workers* or casuals who live in nearby barrios; (g) *sacadas* or migratory seasonal workers; (h) *contratistas* or labour contractors who recruit sacadas. Although sacadas are a favourite illustration of "exploitation", a study of sugarlandia found that they make up only 10% of the field force. They are usually young, single, and are farmers, fishermen, or labourers in their home provinces and are sacadas as a part-time job. It is only one source of income for most of them. In terms of age, education, job security, and even nutritional status, there is a hierarchy also from hacenderos to temporary workers.

Two studies of sugarcane farmers and workers provide us with some comparisons between the Luzon and the Visayan situation. On the whole, there was higher literacy, higher education, more alternative job opportunities and income sources, higher level of living, more organizational membership, more participation in seminars and training programs in Luzon than in Visayas. In general, sugar farm workers began farm work at a very early age, 10 years or younger, and many of them have been working on the farm continuously for an average of 15 years. Their farm activities are all physical and manual and require considerable energy expenditure. It is probably for this reason that about three-quarters of them subscribe to the saying that "health is wealth" and their major reason for believing in this old adage is that "a healthy person can earn a living." The planter, on the other hand, is not the tiller. He is the supervisor-manager. The subsistence existence of farm workers is suggested by the fact that 70% of them said their income is not sufficient for basic necessities. They make both ends meet by borrowing, doing odd jobs, and tightening their belts. Visayan farm workers borrow for food consumption; whereas, those from Luzon who are mostly share tenants borrow for production. It is noteworthy that two-thirds of Visayan workers said they received not only expected, but also unexpected, benefits mostly from planters. Contrary to our stereotype of the sugar worker who loves drinking and cockfighting, only 3% mentioned the former, and 18% for Luzon and 9% for Visayas mentioned the latter. On the whole, life among the sugar workers is characterized by poverty laced with some leisure; dissatisfaction with but resignation to their jobs; and few conflicts or disputes. They are essentially nonpoliticized with only one-third being aware of the existence of social classes in the community based on occupation or profession and financial standing. Only 15% aspire for leadership in an organization or informal group and even less are interested in political positions. Moreover, the majority would not encourage their children to run for political positions.

Even in a place such as the Canlubang Sugar Estate where social conditions are "Utopian" in the sugar industry context, farm workers do not wish the same life for their children. However, for themselves, there is considerable contentment with practically no one wishing to accept jobs outside the estate. Comparing the industrial workers with the agricultural workers, the former, who have higher status, also have higher aspirations and expectations than the latter. It is evident that those who have more, expect more, if not for themselves, then for their children.

Tobacco farmers

The tobacco farmer is a small farmer, usually Ilocano, with an average farm size of a little over a hectare, but whatever little area he has is multicropped with rice and other food crops used for home consumption or barter for other goods. Tenancy rate is almost as high as in rice. If one were looking for the most "economic men" among Filipino farmers, the tobacco farmers would most readily qualify. With the government price support program, they pushed the production of Virginia tobacco more than 15 times in 10 years, but this declined rapidly when marketing and price support problems arose. Although they have only 5 years of education, they are most responsive to recommended tobacco growing practices because of price incentives for quality products. An adverse consequence of this very "economic" response is the shortage of wood fuel for drying, which has led to the denudation of mountains in the Ilocos Region. To save on fuel, a *centralized flue-curing* operation has been introduced, coupled with a tobacco *auction market* which is intended to do away with middlemen.

Banana farmers

About 10 years ago, banana farming became big business intended for the Japanese consumer. Three-quarters of banana farms are operated by full and part owners and 23% are tenanted. About one-fifth of the banana hectarage is under a management system and the modern banana industry is analogous to an automated factory that employs exacting production and processing techniques designed to satisfy the export market. High degree of specialization and division of labour is followed in an assembly-like fashion with decisions made by top-level management. Bananas are grown under the *plantation system* and the individual *farmer-grower system*. In the former, the plantation is a community where management provides a number of services for its workers. In the latter, growers have a contractual relationship with the banana company but they retain ownership of the land. A more hierarchical and centralized control of production, processing, and marketing is possible in the plantation. Given two different organizational systems of production, how does each one contribute to the goals of equity, welfare, productivity, and employment? Who looks after the protection of the environment which is affected very much by the production process? The modern banana industry illustrates two significant social phenomena: (1) The notion that *traditional subsistence agriculture* is a *way of life* in contrast to modern agriculture which is a business is really not a meaningful distinction. Agriculture pursued as a business is as much a way of life as agriculture for subsistence, but it is a different way of life dictating a rhythm, subculture, and character of its own. (2) The banana industry is an example of almost complete technology transfer from the "Banana Republics" of Central America with its accompanying problems of adaptation and social organization.

Upland farmers and kaingeros

Upland farmers are regarded as the poorest and most deprived among farmers. They engage in a diversified cropping system in order to survive under very unfavourable natural resource endowments. Needless to say, they have low productivity and low incomes. However, they are blessed by the fact that most own the unproductive land they till. Upland farmers are most mobile in terms of place of work and they derive more income from off-farm activities. To cultivate their upland farms, unpaid family labour is used and, since they own the land, whatever income or produce they obtain is theirs. Upland farmers are, therefore, marginal farmers and whatever food crops they grow are predominantly subsistence-oriented. They are mainly agricultural labourers and nonfarm workers. Since upland areas absorb very little labour compared with rain-fed and especially lowland irrigated areas, and because upland farmers derive a greater portion of their income from agricultural employment and nonfarm employment, further improvements in irrigation systems have their salutary off-farm employment effects on upland farmers.

One category of farmer who is regarded as a villain is the *Kaingero* or the *shifting cultivator*. In age and education, Kaingeros are not much different from rice and corn

farmers. Most have been in kaingin farming for 18 years and are diversified farmers. More than one-half of them were born kaingeros; the rest consider themselves "forced kaingeros" for lack of other means of livelihood. For about 50% of them, kaingin is just one source of income. One-half are natives of the place and the other half are migrants, a fact which suggests that kaingin is already a product of their search for a means of livelihood. Like other farmers, kaingeros have high aspirations for their children and expect college education for them. Because of the evils associated with kaingin, one would think that, if kaingeros were aware of the destructive consequences of their livelihood, they would be willing to give it up. Contrary to this naive impression, kaingeros have a high level of knowledge and understanding and they even think the government is justified in prohibiting kaingin. But despite this awareness, they do not wish to change their occupation. They believe that one should think first of one's own welfare before that of the nation. Although kaingeros are poor, they are no poorer and may be a bit better-off than other farmers. They use more of their own labour on their kaingin. Their peculiar advantage lies in the minimal amount of capital required and the fact that they have no land rentals to pay. Earnings from kaingin are practically net income and about one-half of them have other sources of income. Unless viable alternatives are made available as means of livelihood, punitive measures alone will not discourage kaingin.

Multiple-Crop farmers

From previous discussions, we have seen that tobacco, rice, corn, sugarcane, coconut, upland, and kaingin farmers are in many instances not monocrop farmers. Multiple-cropping is an age-old practice of growing a series or a combination of crops best adapted to the land. Recently, research and extension efforts have centred on multiple-crop diversification which aims to improve intensity of land and labour use, increase profits, and assist in stabilizing farm incomes. There are two broad categories of multiple-cropping patterns: sequential and simultaneous. Studies have shown the rice-based nature of multiple-cropping. Hence changes in the characteristics of the rice plant, such as its short-maturity, have implications for the growing of other rice and crops. Some farmers are both lowland and upland farmers but the former has priority over the latter. Labour utilized in cropping systems includes a substantial portion of hired labour. The shorter the time delay between rice harvest and the planting of successive crops, the higher the proportion of hired labour used relative to operator and family labour.

Cavite farmers represent a group of sophisticated market-oriented multiple-cropping farmers who farm at five levels from the sky to the ground starting from coconuts to root crops.

Vegetable farmers

About one-third of Filipino households raised vegetables and fruits in 1974. Almost 90% raised them in the backyard mainly for home consumption. Commercial vegetable growers are represented by the Benguet farmers who have less than 2 ha and are mostly owner-operators. Although they have low education, they are functionally literate and are inclined to join special interest organizations. They have high media exposure owing to a tradition of keeping to their families and their grounds. They are very modern in farming practices and are definitely market-oriented, for their products are transported to Manila. Compared with other farmers, their incomes are high. In Misamis Oriental and Bukidnon, vegetable farmers tend to have other major occupations. Vegetable growing is more of a sideline. In general, vegetables are grown under three circumstances: (1) backyard for home consumption, (2) intercrop in a multiple-cropping system, and (3) commercial-market-oriented where vegetables are a major crop. The latter is quite sophisticated and usually "society vegetables" are the specialty.

Livestock farmers

Although livestock farming absorbs little of our labour force, the livestock subsector accounts for 20% of gross value of agricultural production. What is more significant is the rather widespread practice of raising poultry or livestock. Forty-three percent of Filipino households (53% rural and 26% urban) engaged in this practice in 1974: one-half raised them for home consumption; 22% for commercial purposes; and 28% for both. The most frequently raised animals were chickens, ducks, and pigs, the latter being more popular in the urban than in the rural households.

Swine and poultry farmers

Ninety percent of hogs and 80% of chickens are raised in backyard farms. The rest

are produced by very large sophisticated poultry and piggery farms with highly integrated operations located near population centres. Imported breeds and foreign technology are employed in these firms. Some smaller swine and poultry raisers are able to participate in these large commercial enterprises via a system of contract growing. In the commercial farms, there are two types of workers: (1) the low-level with *manipulative* skills and (2) the high-level with *managerial* skills.

Market-oriented but smaller swine farmers have higher education than rice and corn farmers. Many of them have college educations, have white-collar jobs, and engage in the enterprise as an additional source of income. They use their savings or money borrowed from the bank to capitalize their projects. They also adopt recommended swine production practices and have some exposure to extension and media sources of information, but there is not much contact between farmer and change agent. In some cases, small livestock and poultry raisers are also rice farmers and use these projects for supplementary income. Although swine and poultry raising uses some family and hired labour, it is not a significant absorber of labour, even in the large modern farms.

Cattle and carabao farmers

Less than one-quarter of the cattle population are raised on commercial farms which are concentrated in Mindanao and Bicol. Backyard cattle raisers are found in Southern Tagalog, Ilocos, and Cagayan Valley. Among these cattle raisers is the dual farmer who raises beef cattle under coconuts. These farmers know little about approved practices for cattle husbandry. Hired labour is employed, but tenants in these farms prefer to plant corn rather than to take care of animals because the corn produce is practically all theirs.

More than three-quarters of the total cattle population and practically all carabao are backyard-raised. The majority of the farmers, who are share tenants and lessees, are also crop farmers (rice and coconut). Almost 90% own the carabao but only 50% own the cattle. The former is more prevalent in the rice area and the latter in the coconut areas. Carabao raisers have had 20 years experience, but cattle raisers have had only 10 years. The *paiwi system* is an animal sharing arrangement, analogous to share tenancy, for those who raise cattle belonging to someone else. The majority of animals raised are native and the most common animal feeding practices are tethering and soiling. When asked for their preferred system of dispersing animals, if a dispersal scheme were to be carried out, the preference is for the individual rather than the organization to be the recipient. The majority preferred the *paiwi system* of acquiring an animal. This share tenancy system in livestock minimizes risk for the livestock raiser because he does not have to purchase the animal himself.

Unlike poultry, swine, and beef cattle, commercial dairying is rare. Since backyard cattle and carabao exist mostly in the care of crop farmers, a second strategy for dairy development has been attempted with the setting up of milk collection schemes using carabao and/or cows who could be milked during certain stages of their life cycle.

Diversified farmers

Many farmers are engaged not only in cropping systems but in farming systems that include livestock. A detailed analysis of crop and livestock combinations in the farm shows that the *pure-rice* farmer is practically nonexistent even in predominantly rice areas. Almost everyone raises some other crop and some livestock. The Batangas farmer is the most versatile example of this diversification. All these crops and livestock have a particular role to play in the total household income. The diversity spreads out the risks in farming and takes advantage of whatever adverse or favourable circumstances the physical and economic environment offers. It is the sum total of all the produce and all the other income sources that determines the survival of the farm family.

CHAPTER IV

THE FARMER'S LABOURER

Although the farmer has long been the chosen object of agricultural and rural development programs, recent rediscoveries of "the poorest among the poor" have led to the disconcerting possibility that perhaps there are other categories of people such as the *farmer's labourer* who are more deprived, poorer, and more disadvantaged than the farmer. In carrying out his farming activities, the farmer becomes an "employer" hiring labourers to assist him and some of his family members. Because of the relatively recent interest in the farmer's labourer, much is being said to promote the welfare of this particular category of the rural poor, but there is little definitive knowledge about him. This chapter describes ten different aspects of the farm labour situation and tries to identify some of the issues associated with it: The farmer's labourer - an estimate of numbers; and farm labour patterns: who the farmer's labourers are; patterns of labour utilization; tenure status, off-farm work and use of hired farm labour; patterns of hiring; labour absorption in the farm; wage rates, regularity of employment, and labour mobility; job preference for themselves and for their children; the farmer and the landless at the village level; and living conditions of the landless.

Since the majority of the agricultural labour force are engaged in rice production, the discussion focuses on the labour situation in rice farming.

The farmer's labourer - an estimate of numbers

A basic and most important question about this particular group of workers is just how many are there. The 1970 Census, Table 55, indicates that about 26% of the total labour force are *farmers and farm managers* and about 24% are *farm workers* whether paid or unpaid. These two occupational groups make up a significant portion of the country's labour force. Because farmers' children are also engaged in farm work, these figures do not tell us how many of the farm workers are landless. Farmers' children cannot be counted among the landless when they are still part of the farm household. Some clue as to the magnitude of the landless could be gleaned from the 1968 National Demographic Survey of the Population Institute, University of the Philippines, which enumerated *household heads* and not individual members of the labour force. Their findings showed that 24% of Filipino household heads are *farm owners*; 22.5% are *farm tenants and owner-tenants*; and 10.0% are *farm labourers, fishermen and loggers*. We could infer from this that the 10.0% *farm labourer households are landless*.

Table 56 gives the characteristics of the *agricultural labour force* and shows that farm workers are almost as numerous as farmers and farm managers (45 and 48%, respectively). Less than 20% of those engaged in agriculture are females, of which 37% are farm workers and only 6% are farmers or farm managers. As indicated in Table 57, farmers are in general older than farm workers but the few female farmers are older than the ordinary male farmer. This might be the case because the farm is usually operated by the male household head or son if either of them is available. Among male farm workers, almost 50% of them are less than 19 years old. On the other hand, 38% of female farm workers are 35 years and older, and there are only 16% of male farm workers at this age level. Data from Table 58 suggest a tightening land situation. Among older rural males aged 55-64, farmers and farm managers constitute 68% and farm labourers, only 9.4%, but among those aged 25-34, farmers make up only 51.3% and farm labourers, 16.8%. Among females aged 55-64, about 18% are farmers, but at the 25-34 age level, only 5.8% are farmers. The proportion of farm labourers among the older and younger age groups of women is approximately the same (40%).

Due to population pressure, one can only expect a decrease in land available to farm-cultivators. At the moment, some of the farmer-labourers cannot be regarded as completely landless if they are children of farmers, but we can assume that, unless they take over the parents' farm, there is very little chance that they will have land to manage and cultivate themselves. From currently available data, farmer's labourers have

not yet outnumbered farmers, but a more reliable estimate of landless farm labour is required. Prior to the land reform program, *share tenants* and *lessees* were regarded as landless because they did not own the land which they cultivated. Now, the definition of *landless* tends to be restricted more to those who have no access to land whether or not they own it; hence they can only work as hired farm labour. In this restricted sense, *share tenants* and *lessees* are not *landless*.

Farm labour patterns

Although the farmer is known to be poor and underemployed, farm level studies have shown that, in several stages of the rice production process, the labour on the farm is performed neither by the farmer himself nor by his family but by others. The following activities are the ones performed mostly by the farmer and his family: supervision of farm operations; seedbed preparation; cleaning rice fields and repairing dikes; applying fertilizer, insecticides, pesticides, and herbicides; irrigation; bundling, hauling, and stacking reaped rice stalks in preparation for the threshing machine. Land preparation using man-animal labour is often done by the farmer, but hired labour is usually used for mechanized cultivation. Pulling seedlings, transplanting, weeding (hand or mechanical), harvesting, and threshing are commonly performed by hired labour (277, 287).

The farmer's labourers

In analyzing the impact of agricultural development on income distribution and employment, it is important to identify who is hired to do these jobs for the farmers. It makes a considerable difference whether the labourers hired are other farmers or are landless. So far, five types of farmer's labourers have been identified (342):

Farm-hired labourers - They are farmers who hire themselves out to other farmers and earn part of their income from off-farm work.

Children of farmers - In the case of some farmers, their children also work as hired farm labour. For other farmers, however, only their children do off-farm work.

"Pure" hired labour - These are landless labourers who depend on hired farm work as a major source of income. They have no access to land, whether owned, leased or share-cropped, which they could cultivate and manage themselves.

Children of "pure" hired labour - They are sons and daughters of the above who usually work with their landless parents in hired farm work.

Landless hired farm labour with some farm cultivation privileges - These are hired workers in coconut, rice, or other farms, but are allowed by the farm owners to cultivate a small portion of the land such as that under the coconut trees. Whatever is produced from this small lot is usually kept by the labourer and his family or is only minimally shared with the owner of the land.

The exploratory study showed that farmer-hired labourers, as expected, tended to have the highest earnings, followed by hired labour who have farm cultivation privileges. Lowest earnings went to children of the landless and to children of farmers. This is understandable because their income is mostly supplementary to that of their parents who are the major breadwinners.

Except for the Rivera and Portabes studies, there is little information available as to which of the five types of hired farm labour is used on our rice farms. Rivera's Nueva Ecija study showed that pulling seedlings, transplanting, and harvesting are done mostly by landless labour. Only a few farmer-labourers and their children are hired for these jobs. However, some of the land preparation is done by them because they have the animals and equipment. Machines are often used for threshing; hence the thresher's share accrues to whoever owns the machines, which in many instances is the landlord. In other places, however, harvesting and threshing are done mainly by landless labour.

Portabes in his Pangasinan study found that landless labour is seldom hired. Farmers prefer farmer-labourers for use in rice farming because they already have the skills and the equipment required for the job. The farmer-labourers require additional income and, therefore, want to do harvesting at contractual rates paid in cash. They obtain a rice supply from the farms that they are cultivating and cash for their hired farm work. Furthermore, it was also observed that landless labourers themselves prefer

nonfarm to farm work. Household members of farmer-labourers and farm-operators were also looking for work outside the farm. It is interesting to note, however, that in the planting and cultivation of other crops such as mung beans (mungo), vegetables, corn, peanuts, tomatoes, and soybeans, the labour utilized is mostly landless labour and only a few are farmer-labourers.

Studies done in other parts of the country have also reported the phenomenon of farmers working for other farmers as hired labour (76). Farming communities use different groups of farmers' labourers, but it cannot be explained why more landless labourers are used in some places and more farmer-labourers in others. The answer to this question is very important for it is relevant to the plight and future of the landless, especially in a situation where industrial development has not kept pace with the expansion of the labour force and agriculture is still expected to "mop-up" rural unemployment.

It is significant to note, for example, that in Mangahas et al.'s intensive study of farmers belonging to different tenure groups, more than one-third had off-farm work, but of those thus employed only about 9% were working as farm help on other people's farms. The majority of those with off-farm work were engaged in poultry and swine raising and in skilled and unskilled jobs. About 5% were employees (226, p.117-118). Does this suggest that, where nonfarm employment is available, farmers have greater access to it than the landless, or does it mean that in some urbanizing areas part-time rice farming is emerging in combination with poultry and swine raising and employment in skilled and unskilled labour? Because of the poor earnings from rice farming and the risks attached to it, other sources of income provide the necessary insurance against hunger and extreme deprivation.

Patterns of labour utilization

There are different types of labour utilized on the farm. As shown in Table 59, labour can be supplied by the farmer himself, his wife and/or children, hired labour, exchange labour, and free labour. Exchange labour is contributed by other farmers, particularly in land preparation, with the expectation that the farmer will return the favour to them. Free labour is given, without any compensation or expectation of a return favour, in cases of emergency such as illness, loss of work animal, or equipment failure. Tables 59 and 60 show that exchange labour is not substantial and is more prevalent in less urbanized provinces such as Oriental and Occidental Mindoro and Leyte.

Tables 59 and 60 clearly indicate that the majority of farms use hired labour. The labour input of the farmer himself is only a small portion of the total labour required. It is interesting that this pattern prevails regardless of tenure status and small farm size. Even those who have less than a hectare use hired labour. The role of family members does not seem to be very significant compared with the contribution of hired labour in Cagayan and Laguna and exchange labour in Occidental and Oriental Mindoro. Another noteworthy observation in Table 60 is the sizeable portion of the labour cost that is paid to noncash hired labour even when the number of man-days involved is less than that which is paid in cash. For example, 52 man-days of hired labour paid in cash cost P463.83, but 42 man-days paid in kind is valued at P600.44. This is so because labour paid in share of the harvest rather than in cash is worth much more than the daily or contractual wage rates. This is a traditional practice sanctioned as a means of sharing the harvest, particularly with the landless. A change from noncash to cash payments for harvesting and threshing would, therefore, be inimical to the interest of hired labour, unless the price of rice dropped drastically and wage rates remained high - a situation which is not very likely to occur.

In examining the impact of the new rice technology on employment, certain trends become evident (5, 26, 76, 169, 170, 186a):

(1) There has been an increase in overall labour absorption, although man-days in land preparation have been reduced by some mechanization. The weeding, harvesting, and threshing requirements have gone up. Doubling and tripling in cropping intensity due to irrigation and shorter maturity of the rice crop has also contributed to increased use of labour.

(2) The trend has been toward greater use of hired labour rather than family or exchange labour.

(3) Studies in Laguna and Central Luzon showed that, from 1966 to 1975, the proportion of production costs that went to land rent declined from two-thirds to one-

third; whereas, the amount paid to hired labour increased from one-quarter to one-third.

Whether or not it has anything to do with the new rice technology, several studies have indicated that *actual labour costs* are higher than the cost of material inputs such as seeds, fertilizers, insecticides, pesticides, etc. However, the literature on the gains and drawbacks of the "green revolution" has tended to concentrate on the latter set of inputs and somehow neglected to analyze more closely the labour involved. Perhaps this lop-sided attention arises from the fact that fertilizers and chemicals are commercial, purchased and imported, and represent Western modern technology with its accompanying "evil" on the environment. It is not realized that labour is hired or "purchased" and requires a cash outlay the same as fertilizers. Furthermore, in actual practice, and in the event of production financing problems, fertilizers and chemicals can be reduced or eliminated. However, if money for labour is not sufficient, the farmer and his family must perform most of the work themselves or take "short-cuts" on the farm. Consequently, rice production may not be carried out as well as it should be. In other words, labour input is indispensable, but fertilizers and insecticides are not.

The need to have cash for labour is clearly recognized by specifically providing for it in the typical budget per hectare for credit under the Masagana 99 Program:

A. *Cash Portion*

Land preparation	P 300
Pulling of seedlings	30
Transplanting (straight row)	100
Stationery and materials	30
	P 460

B. *Seeds* P 90

C. *Input Portion*

Fertilizers	P 430
Chemicals	200
Rodenticides	20
	P 650

T o t a l P1,200

Although loans under this program provide more for material inputs than for labour, this situation applies only to farmers who are able to borrow from this program. Furthermore, there are reports of farmers selling part of their "fertilizer loan" to those who are non-Masagana 99 borrowers or to sugarcane growers. It is possible, therefore, that in some instances the cost of these inputs as utilized on the farm is not as high as it appears in the farm budget and in the approved loan.

Table 61 shows the relative amounts spent for labour and inputs such as seeds, fertilizers, and insecticides. In a study of crop disposal among members of 25 farmers' barrio cooperatives, 13.5% of the crop went to harvesters and threshers alone and 17-19% went to the landowner. In the same study, expenses for weeding, transplanting, plowing, harrowing, harvesting, and threshing accounted for more than 50% of total farm expenses. Hayami, in his village analysis, reports that on the average, total labour cost was about 30% of the total value of rice output (166). It is clear that labour has more significant input in rice production and that rice production is a more important absorber of labour than of imported inputs. The impact of development in rice production on the employment and welfare of farmers' labourers deserves greater scrutiny than it has received in the past.

Luning's study of variable cost per hectare, given three different classes of irrigation land, also found that, whether it is for the first or second crop, the expenses for fertilizer, chemicals, and seeds make up only about 36% of total variable costs. On the other hand, the cost of hired labour for harvesting, land preparation, seedbed/pulling and planting, weeding/cleaning, transport, etc. accounts for approximately 45% of total variable cost, of which about one-third goes to harvesting. The labour-absorbing impact of better irrigated land is also shown by the fact that the cost of hired labour for first-class irrigated land is one-and-one-half times more than that for third-class irrigated land. Irrigation, therefore, benefits not only the farmer but also the farm labourer (218). Furthermore, for the first or second crop, within the same class of irrigation, owners and lessees spent more for hired labour per hectare than tenants (Table 62).

Tenure status, off-farm work, and use of hired farm labour

One problem which concerns both land reform and employment is the relationship between tenure status and farmer's employment in off-farm work. It has been argued that, because of disincentives in the sharing system, the tenant will not be inclined to invest much of his own labour on the farm. Based on the model of tenancy, Mangahas et al. said that "share tenants would tend to apply less of their available labour to their farms than would lessees, hence spending more time at other work" (226). If this were so, a change in tenure status from share tenant to leasehold or amortizing ownership or to being an owner would increase the application of the farmer's labour on his own farm and decrease the time engaged in off-farm work. As Sacay stated, in his justification for land reform, "Share tenancy does not lend itself to providing the incentives so necessary for increased production. If the farmer has to share the increment in production with the landowner, he has little incentive to work harder... In a leasehold system, rental for the use of land is fixed and, therefore, increased production through better management, harder work and larger capital investment entirely accrues to the farmer" (293). In support of this expectation, Takahashi, in his study of a Central Luzon village, found that lessees are abandoning paid off-farm work to concentrate on the land (316). On the other hand, Fegan disputes Takahashi's claim and argues that the farmer does not have to allocate his labour to either full-time job or full-time farming, but can strive for the optimum mix of both, balancing his need for cash against the need for attention to his farm. Fegan contends that off-farm work can complement farming in three ways: (a) It provides "side-line" income to meet part of subsistence needs; (b) the tasks required for rice production are not constantly demanding and can be accommodated with a job under prevailing conditions; (c) an off-farm job provides some insurance against crop failure (132). Another explanation for share tenants' tendency to seek other means of livelihood, suggested by Mangahas et al., is that they do so possibly to make up for the smaller share they derive from their farm produce.

Takahashi, in a more recent analysis, continues to argue that changes in tenurial status would bring about more labour input from the farmer and his family. His explanation runs as follows:

"Under share tenancy they used to have the tendency to minimize their labour input on the farm and instead tried to utilize their own and family labour for off-farm jobs, like wage work on the farm of neighbors or casual work in the urban as well as in small enterprises such as retailing and pedicab driving. This tendency was due to the fact that being under heavy indebtedness to landlords (which is a basic feature of share tenancy in the Philippines), the cultivators were not able to get their share of the produce at harvest since they had to repay their loans. Therefore, for them it made much more sense to work for cash elsewhere and to maintain a minimal labour input on the farm. As long as the tenant cared for his farm at the same level as his neighbors, the landlord could not evict him on the basis of negligence. Crop failures were assumed to be the will of God and not the result of error or mistake by the farmers. This was one of the causes of low productivity under share tenancy. Under leaseholding, the cultivators were much more careful of the crop they raised. They showed an attachment to their crop and an eagerness to expand production. This difference in the attitude of peasants toward their crop seemed to be a significant consequence of tenurial change. However, the motivation of peasants remained the same, since they were looking for maximum benefit out of their reasonable resource allocation under different terms of sharing."

He further contends that "changes in level of living of leaseholders also had an impact on village society. However, the expansion of income was mainly restricted to cultivators whilst landless workers obtained some limited benefit such as an increase in employment opportunities as a result of the progress in infrastructure and in farming intensity as well as changes in cropping patterns. At the same time, there was a tendency *for farmers to reduce their dependency on hired workers*" (317).

Keeping these arguments in mind let us examine Tables 63 to 66 from which the following observations may be made:

Data from the Mangahas et al. study show that share tenants derived a higher proportion of their income from off-farm work than lessees and owner-operators, but amortizing-owners derived as much of their income from off-farm work as share tenants. Based on their model of tenancy, share tenants are expected to apply more of their labour to off-farm than farm work. The data, therefore, confirm this expectation, but the high proportion of amortizing-owners' income that is derived from off-farm work remains

unexplained by this model because one would expect this particular tenure group to devote most of their labour to their own farm. Furthermore, the percentage of farmers from three tenure groups - share tenants, lessees, and amortizing owners who are engaged in off-farm work - is practically the same for the three groups (about 40%). The percentage of owner-operators who reported off-farm work is slightly lower (35.4%). It should be pointed out that owner-operators received the highest per capita household income of the four groups, followed by lessees, share tenants, and amortizing owners. It is, therefore, possible that tenure status *per se* does not determine how much a farmer would apply his labour in off-farm work but rather his desire for additional income, availability of opportunities for such type of employment, and possession of qualifications and requisites for off-farm work including energy and good health. For some reason, amortizing owners had the lowest farm income and greater indebtedness, which would put pressure on them to seek income from other sources.

Table 64, which presents data on cost of production per hectare by tenure status and cropping pattern in Iloilo, provides information on *hiring-in* labour practices in contrast to farmers' *hiring-out* their services for off-farm work, which was discussed above. It is evident that regardless of cropping pattern (single, double, or multiple-cropped) *lessees* spent a greater portion of production expenses on hired labour than the other tenure groups, whether they be tenants, owners, part-owners, or squatters. The latter group reported the highest percentage of unpaid labour expended on production. This is understandable because we would expect these squatters to be not only poor but also "insecure" in their "tenure" on the land. However, it is worthwhile noting that even squatters employed hired labour which amounted to almost 20% of their production expenses. Tenants, owners, and part-owners did not differ much in amount of hired labour input used. Ironically, contrary to expectation, share tenants utilized more unpaid labour than lessees, part-owners, and owners. They also paid out the highest percentage of variable costs, ostensibly for landlord shares. For every cropping pattern and every tenure status, except for owner-administered farms, the percentage of production cost spent on hired labour is higher than the total percentage paid for material inputs such as seeds, fertilizer, and chemicals. Owner-administered farms of all tenure groups devoted the greatest production expense on fertilizers.

Data from other studies (Table 65) provide further evidence which challenges the notion that share tenants would use more hired and less family labour and that owner-operators and lessees would do the contrary. What little difference there is in labour utilization among tenure groups supports the opposite view because share tenants used more family than hired labour. Furthermore, regardless of tenure status, there was more hired than family labour and the proportion of hired to total labour applied increased from 50% in 1966 to 77% in 1975. Owner-operators and leaseholders used as much as 80% hired labour.

A more direct examination of land reform impact on labour utilization is offered by data on pre- and post-amortization status of farmers (Table 66). In five out of seven land reform areas surveyed, man-days per hectare of hired labour increased after farmers became amortizing owners. In the two towns, Guimba, Nueva Ecija and Pototan, Iloilo, hired labour was reduced after achieving amortizing ownership, but use of their own, family, or exchange labour did not increase. In other words, in these two places, there was simply a decline in man-days of labour applied per hectare. In six out of seven places, man-days of operator's labour declined after farmers became amortizing owners. From pre-to post-amortizing ownership period, there was little change in utilization of family and exchange labour. In short, the shift in tenure status has not increased the utilization of operator's labour. As a matter of fact, the shift has been toward a greater use of hired labour.

Availability of credit seems to have a positive effect on the use of hired labour. Table 67 shows an increase in the proportion of hired labour after farmers participated in the Masagana 99 loan program. However, only 2 or 3% were added to those who were already using hired labour. It is obvious that, even without this program, there is a high proportion utilizing this kind of labour.

An analysis of the Agricultural Credit (Short-Term) Non-Repayment Problem in the Philippines, which was conducted by the Bureau of Agricultural Economics in 1974, reported that of 2633 farmer-borrowers from 18 provinces, 72% reported that their loans enabled them to hire needed manpower. Actual uses of the rice production loans indicated that one-third was spent for land preparation and weeding; another 10% was for other

agricultural expenses which included transplanting, procurement of tools, and equipment, etc. About one-half of the loans was spent on farm chemicals and fertilizer. Ten percent went for nonagricultural purposes.

Best in his Central Luzon study found that, although farmers with credit are spending more for inputs than farmers without credit, only one-half of the increase, at most, is being spent on fertilizer and the other half is being spent on hired labour (32).

All this empirical evidence reinforces our earlier suggestion that perhaps it is not tenure status *per se* which determines the amount and type (family or hired) of labour which will be applied. A number of possible explanations may be offered for this lack of relationship between tenure status and use of hired labour:

(1) In order to hire labour, it is essential to have access to capital to pay for their services. Tenure status is related to hiring capacity only, to the extent that it contributes to the ability to pay labour. In the case of owner-operator, their output is wholly theirs, hence they have more capital. For lessees, because of land reform, they have reduced lease rentals and greater access to credit; hence they could afford to hire labour. This, however, does not explain why even squatters and share tenants use quite a bit of hired labour. In general, access to credit enables farmers to hire labour regardless of tenure status.

(2) The demands of rice production are such that the available labour from the farmer and his family are unable to cope with peaks of labour activity when certain tasks have to be accomplished within a short period. This aspect of the farm family is particularly relevant to the labour situation because we have a dilemma of large family size but limited labour potential at the individual farm household level. As the 1973 National Demographic Survey indicates: If the mean number of children at the end of the reproductive period is 5.89, the mean family size should at least be 8.0 persons, but the data yielded a mean household size of only 6.08 because 1.94 members have already left the household permanently. Of the six remaining members, 1.04 are 4 years or younger, 1.92 are 5-14 years, and only 3.14 are 15 years and older. This means roughly: father, mother, and one child of working age. In Hayami et al.'s village level study of labour utilization, the average household size was 6.3 members of which 3.5 are 13-65 years of age, but only 2.1 people are actually working on the farm (166). The mother is most likely unable to participate in farm labour in a major way because of younger children and pressure of household chores.

(3) It is possible that rice farming is such a physically demanding process that a farmer would only be too glad to be relieved of the hard manual work as soon as he could afford to use an alternative to applying his own labour or even that of his family. It is not necessarily a low regard for manual work but a welcome relief from it, especially because our farmers are not really in possession of excellent health, adequate nutrition, and an abundance of energy.

(4) Perhaps social pressures from the community make it unacceptable for a farmer and his family to perform all the labour in rice production because other members of the community, particularly the landless, would be denied their chance to share in the resources or their chance to survive.

Patterns of hiring

Labourers obtain farm employment as *individuals*, as a *family*, as members of a loosely organized *work group*, as *exchange*, or as *communal labour*. Hiring is done through the "cabesilla" (work group leader), previous contact, through the farmer himself, or through the landowner. The decision to hire rests with the farmer, the "cabesilla", or the landlord. From the study of farmer's labourer (342), brief descriptions of these hiring patterns are presented to enable us to comprehend the dynamics of job allocation: *Who gets hired, where, how, and by whom?*

Individual and family workers

Through relatives, neighbours, or other acquaintances, some workers approach the farmer-cultivators or landowners for work as individuals or as a family. They hire out their own services independently, or sometimes they do this as a family - father and/or mother; son, and/or daughters. This practice of looking for work on their own is effective where previous contacts have been made or where there is not much competition for farm jobs. With the increasing number of people looking for work on their own it is

becoming more difficult and there is no assurance of their getting the job every cropping season. One arrangement which has evolved in some areas is the *"gama system."* Under this arrangement, the labourer agrees to weed the farmer-cultivators' rice fields, but is not immediately paid for it. Instead he has the right to harvest in the same area which he weeds and his share of the harvest is usually one to six. In addition, he receives one kerosene can (20 litres) of unhulled rice for every parcel that he weeds. This *gama system* assures the labourer of being able to harvest something for his family. Many labourers under this system complain that they are being exploited by the farmer because they have to do all the weeding, which has to be done more than once during the growing season. The farmer-cultivator, on the other hand, also complains that the "gama" labourer is often sloppy in his work and does not do a good job. Actually, if he hires weeders on a daily basis, the farmer could supervise them better in their work. Furthermore, there are weeder-harvesters under this arrangement who have agreements with more than one farmer and, therefore, the farmer sometimes has to wait for his turn to have his rice fields weeded. In other words, he cannot always have their services when he needs them. Other farm labourers not involved in the *gama system* are denied the opportunity to participate in the harvesting, a task which is most preferred by all the labourers, especially when the advantageous sharing-in-kind system is practiced. In other words, harvesting ceases to be a free-for-all system where everyone, particularly the landless, can have a share of the harvest.

Group Workers

Some farm labourers join a work group organized by a "cabesilla" or "punong barkada" (group leader). The leader contracts work for the group, which ranges from 10 to a hundred members. He negotiates with the farmer-cultivator for work such as transplanting, weeding, and harvesting. The terms of payment are in a lump sum rather than on a piecemeal, daily, or individual basis. For example, a farmer may agree to pay a certain amount for weeding his field twice per season. The farmer is not concerned about how many workers the "cabesilla" brings in, as long as the work gets done. The payment is divided among them with a small differential amount for the group leader. There is a slightly higher pay for linesmen (for straight-row planting) than for transplanters. The "cabesilla" sometimes receives a minimal commission from each worker and, if he works with the group, receives regular pay as a transplanter. When the farmer's field is small, they receive less per person. When the contracted area is large, they receive more per person. At any rate, there is *work sharing* among group members as long as the leader is able to find work. Belonging to the group is advantageous to those who have just joined the labour force, have few or no skills, and have no idea where to look for work. The cabesilla, who often started as a hired labourer himself, also teaches basic farm jobs such as straight-row planting. He also trains the linesman to use the planting board or the string for the guidance of transplanters. Maintaining harmony among the group members is the responsibility of the "cabesilla." The majority of the members of these groups are females and some "cabesillas" are also women. In rice-growing areas, the average age of first hiring is between 15 to 18 years. There is a tendency for group workers to be younger than workers who hire out their services individually. Cabesillas perform a very useful role, especially in rice farming where demands for labour are seasonal. They serve as the liaison between farmers and workers. The farmer does not have to look for weeders, transplanters, and harvesters himself. He negotiates and contracts the work orally with the "cabesilla" and the latter is responsible for scheduling their work with different farmers. The cabesilla frequently recruits relatives for the group and this leadership function tends to be handed down from parent to child.

In one village which was studied, there were three different work groups: one for straight-row planting; one for random transplanting; and another for sugarcane work.

Exchange Labour

Available evidence suggests that exchange labour is going "out of style" except in the less developed and less urbanized parts of the country. In such areas where it is minimally practiced, exchange labour usually occurs only in land preparation. A farmer may help to plow another farmer's field (together with other farmers) and later they help to plow his field. Food is usually served by the recipient farmer. As the concept of exchange implies, only farmer-cultivators and usually only those who have farm equipment, a work animal, or a tractor can participate. Landless labourers are not part of the exchange labour because they have no farm on which to exchange work. Free labour rendered without expecting any return favour is seldom given. Farmers do

not request help, except in an emergency, because they do not wish to become "indebted".

Communal labour

The Philippine rural community has always been romatically described as a "*bayanihan*" society where villagers give of themselves and share their resources and labour for the common good. While mobilization of voluntary labour is not infrequently observed, the motivation for contributing their labour to communal undertakings is not necessarily altruistic. A case study of a communal irrigation system illustrates the conditions by which local labour is mobilized through a community work program (122). The Cavite Communal Irrigation System rehabilitation project received substantial support from different government agencies in terms of technical assistance, cement, and steel bars, including the services of the Department of Social Welfare and the Catholic Relief Services who provided foodstuff as an incentive to barrio people to contribute free labour.

To obtain this free labour, the barrio council organized a series of meetings with potential beneficiaries of the project and requested contributions of labour and materials. The result was a total of 1010 man-days of voluntary labour mobilized from 100 individuals. The identity of these persons gives us a very good clue as to why they participated in the project: 88 out of the total of 96 farmers in the command area, some of whom were not residents of the village; five seasonal farmers who rent land from farmers in the area during the dry season only; and seven participants with no farms in the command area but who gave of their time with the expectation that improved irrigation in the dry season would increase their employment opportunities with beneficiary farms. The amount of labour contributed by different participants is also very revealing. The average labour contributions of those with larger farms, those with farms inside the system, and those who were residents in the village were higher than the contributions of the smaller farmers, those outside of the system, and those who were nonresidents. Landlords did not contribute anything, apparently because of the anticipated land reform measures which meant that they would no longer benefit from further improvements in their land. It is, therefore, very significant that the individual's incentive to participate is closely related to the expectation that the rehabilitation of the irrigation system would lead to substantial benefits to himself. Estimates of actual benefits to the different labour contributors showed that hired labour gained more proportionally from the project. Since small farmers are the major source of hired labour in this village, they gained directly from increased farm productivity, as well as from increased employment opportunities in larger farms.

From this case study, one can infer that family and self interests rather than altruism and community welfare are the strong motivating forces in stimulating volunteer effort. Furthermore, "free labour" is seldom truly free. As mentioned earlier, foodstuff donations were also used as incentives.

Labour absorption in the farm

Underemployment, which is a fact of life in our farming communities, is often treated as idleness during a greater part of the year. For an analysis of this phenomenon, Wickham et al. classified farmers' labourers into four work groups: I, those working mainly on rice; II, those working mainly on coconut; III, those working on rice plus sugarcane or rice plus coconut; and IV, those with other crops and job combinations.

Using a job calendar, farm labourers were asked details of their employment for each month. There was a marked variation among work crops in terms of season of work, number of work-days rendered, and pattern of employment. Those working mainly on rice were subject to seasonality in that one-third were unemployed during the leanest month (February). Only slight variation was seen for those working on rice-sugar or rice-coconut; whereas, those working mainly on coconut or "other" crop and job combinations had very little variation. On the other hand, it was found that those working on rice had more work days per month (16-20); the rice-sugar or rice-coconut, 6 to 10; the mainly coconut group, slightly less; and the fourth category more work days than the second and third but not as many as those working mainly on rice. However, the "other" combinations are in a far better situation in terms of employment because almost all work throughout the year.

The respondents' feelings about being "fully employed" correspond roughly to their

actual employment situation. In categories I and IV (rice and "other crop" combinations) more than 60% reported having enough work to keep them busy; whereas in categories II and III (coconut and rice-sugar or rice-coconut) more than 60% reported not being fully employed. We can therefore say that, although employment in rice production is more seasonal than in coconuts and sugarcane, there is more work available during the periods when it is in season. In other words, labourers in coconut and sugarcane work throughout the year but they have fewer work-days each month. Seasonality is, therefore, partly compensated by higher intensity of work.

During the slack periods, between cropping seasons for rice or between harvest times for coconut, what do farm labourers do? The females are occupied with household chores. Some labourers move to where there is work. Farmer-labourers supervise the farms that they are cultivating. Others do odd nonfarm jobs such as carpentry, pedicab-tractor driving, hauling sand, etc., and still others claim they do nothing. Those on the rice-coconut and rice-sugarcane area weed coconut, sugarcane fields, and orchards. Among coconut workers, more than one-half of them farm other crops; some engage in buying and selling, and fishing. When asked how they felt about the wage rates for the tasks they performed, the coconut workers expressed the greatest satisfaction of the four groups. They also earn the highest income from sources other than hired labour, thus giving them the second highest income next to category IV "other crop" and job combination workers. This latter group has more income from nonfarm sources. But the coconut workers' advantage lies in the privilege given them to farm other crops under and between coconut trees, without giving a share or with only a minimal share to the landowners. For all four categories of labourers, more than 60% have no other job but farm work.

When asked if they were able to find farm work throughout the year, more than three-quarters said "Yes". Those who gave the affirmative reply said that work is easier to get; there is an increasing need for agricultural workers; farming has become more specialized; wages are higher but farming is more laborious; and new varieties have created more work. Those who were unable to find work throughout the year said that there are more people, fewer farms, and too many hired labourers. For all these farm workers, the median number of man-days rendered per month is 13.8. This means that, although work can be found the year round and one-half of them feel that there is enough work to keep them busy, they would like more work and could use more because they are not fully employed in man-days or earnings.

The median income from all sources for all the workers studied was P1088 per year in 1973. This was barely enough for basic needs. The paradoxical situation, however, is that those who are affected by seasonal variation earned more from hired labour compared with those who are less affected by it. On the other hand, those less affected by variation appear better able to plan on their sideline income sources, hold a diversity of odd jobs, and earn more from all sources than those completely dependent on hired labour.

Wage rates, regularity of employment, and labour mobility

Although there are minimum wage rates for agriculture and for industry, these legal requirements do not have much meaning at the farm level. In rice production, the general pattern is that wage rates for transplanting are the lowest; next are jobs such as hand-weeding, irrigation and water management, spraying, dike repairing, and rotary weeding. The next highest paid are tractor-operators (nonowners) and linesmen in straight row planting; then men who work with animals in land preparation such as plowing and harrowing. The *highest paid task* of all is *rice harvesting* which is also the most preferred because of the favourable payment in kind as a percentage of the harvest.

In coconut work, the lowest wage rates are for weeding; next, tuba gathering; followed by coconut picking; then husking and copra-making. Coconut haulers earn the most per day (342).

One factor which could affect wage rates is the food that is given to some farm workers. In the past, it was customary to provide food to transplanters and other types of workers, but the increase in wage rates has led to a decline in this practice. Where hired labour is relatively scarce, "good food" is precisely the lure applied by farmers to attract them to their farms. One wonders at this point, whether labourers were not better off with lower wages but free meals during the work period. Considering the high cost of food, whatever differential exists in wage rates between working with food or without food it is not likely to exceed the cost of the free meal, especially because

farm workers are known to have healthy appetites.

Regularity of employment

Despite the seasonal variation of work and the prevalence of underemployment, it is surprising to find that almost two-thirds of the farm workers considered their jobs as "regular", less than one-third regarded themselves as "casual", and more than 10% said their work is contractual. "Regular" in this sense does not mean a permanent appointment to a farm job but rather an informal, unwritten expectation that a labourer who works with a farmer can continue to work for him each cropping season. A contractual worker is usually part of a work group which goes from one job to another. The composition of the group could change from one season to the next. It is almost impossible to determine the actual wage rates for contractual jobs because the amount of work and number of workers involved differ for each task. Work contracts, as a matter of fact, are convenient devices for concealing violations of the minimum wage law.

The "casual" labourer is the most insecure because he obtains work only on an *ad hoc* basis and has to be on a constant lookout for work. He is what one might call at the "bottom of the totem pole", among the bottom layer of the rural community.

Labour mobility

Given seasonal variation and underemployment, how far do farm labourers travel to find work? Wickham et al. found that three-quarters of the farmer's labourers came from the barrio or town; about one-fifth came from other provinces; and only a handful came from other towns within the same province. About two-thirds of them traveled to or sought work only within the same town area; about one-fifth went to other towns; and one-tenth went to other provinces. Work in other places included the same major tasks of transplanting, weeding, and harvesting, mostly in rice production. Some engaged in buying and selling, coconut picking, hauling, husking, and related activities.

Hayami et al.'s findings are similar in that employment within the village was the major source of earnings for landless workers. Income from nonfarm employment outside the village accounted for only 5% of total wage earnings during the year (166).

Job preference for themselves and their children

If farm labourers had a choice, what jobs would they prefer? Although this is a hypothetical question, their answers reflect feelings about their present occupation. Wickham et al.'s study showed that 40% of respondents chose farming; 17%, hired labour; 15%, office work; 12%, factory work; and 16%, business. The reasons for their choices are most revealing. Those who mentioned office, factory work, and business preferred these jobs because they would not have to *work hard physically*. Those with minimal schooling preferred *farming* and *hired labour*. The reason for preferring farming was the expectation of more income than from hired labour. Being *one's own boss* was another reason for preferring to be a hired labourer or businessman. Apparently, hired farm workers feel the freedom from somebody else's control. In other words, the tenuousness of their jobs could be regarded as a freedom to come and go.

Those parents who are at the lower level of the social hierarchy have no desire to see their children in the same plight. Almost 90% want college education for their children and very few would wish hired labour and farming for them. Aspirations for their children are obviously much higher than what they themselves have achieved and college education is the perceived instrument for upward mobility.

The farmer and the landless at the village level

Because the phenomenon of the *truly landless* (defined as those who do not have land to cultivate either as share tenant, lessee, or owner-operator) is relatively new in the horizons of agricultural and rural development, we need to understand the dynamics of their existence and the nature of their relationship to farmer-cultivators who, in this case, are *more privileged* and *better-off* than the landless. For insights into this social phenomenon, we are indebted to Peter de Vries who lived for several months in 1976 in a village in Talavera, Nueva Ecija, precisely for this purpose (109).

The origins of the landless

Of the 95 households in the barrio, 31 are landless and are made up of three

groups:

(1) *The migrants* - composed of 11 who migrated to the village as entire households; one came alone but eventually married there. The first migrants in this group came 15 years ago but the average length of their residence in the village is only 5 years. They came without land and have no opportunity to own or even buy the right to cultivate it. The stimulus for migration was the marriage, usually of a female member of their family, such as a daughter or sister who married a farmer in the village. Intermarriage between the son or daughter of a farmer and that of a landless is the only upward mobility channel available to the latter. A case is cited of a landless migrant's son who married a farmer's daughter. Over a period of 8 years, his father and mother, his brother and family, two sisters and their families, and a niece and her family followed and settled in the place.

(2) *Couples of which one or both partners were born in the village (14 households)* - In the majority of cases, the wife was born locally. Because the landless, especially in the past, were still the minority, the chances that the son of a landless would have been able to marry the daughter of a farmer were high. The marriage frequently took place after elopement, so that the girl's parents could not object. After marriage, the couple settled near her parent's home so that the husband could harvest on his father-in-law's land or help him with work in the field.

(3) *Landless who sold their land (5 households)* - As a result of indebtedness from gambling and other reasons, some who used to own land were forced to sell it.

Of special interest is the fact that 7 out of 31 landless households had lived for some time in a town or city but had returned to the village because of the cheaper cost of living.

The position of the landless in the village

Although the landless are the most economically deprived, they are not a distinctly meaningful social group with a class consciousness. They identify themselves with the family or the larger clan which is composed of both farmers and landless. Residentially, the landless do not live apart but are mixed with farmers. Although their most important source of income is hired labour, the landless do not form their own group for this purpose because farmers and their children also work as hired labour. Hence, even in work groups, the composition is a mixed one. None of the landless is a member of the village council. Neither do they participate in the election of work group leader (the cabesilla) as landless. Because their identity is with the family or clan, it is up to the heads of these clans to look after the interests of their landless family members. The farmer-landless labourer distinction is sometimes made only in occasional contributions to village activities such as church matters. The farmers may be asked to pay ten pesos and the landless, five.

Income redistribution measures

When farmers and landless belong to the same clan, there is an uncomfortable inequality among family relations because some have economic resources (land) while others do not. Furthermore, the landless depend on the farmers for farm work. Since the maintenance of family ties is valued, especially because of their close living quarters, farmers attempt to redress the economic imbalance or at least initiate a "helping relationship." This is done in four major ways:

(1) *By giving the landless work in the farm, particularly harvesting.* The amount of work the landless receives is to a large extent dependent on kinship relations. Among relatives, everybody knows the exact harvest date and, a month before, many labourers already know on whose land they will work. There are, in fact, two categories of harvesters: those who harvest every year on the land of a farmer relative and those who, on the day of the harvest, have to ask him for a part of his land to harvest. In general, there are more in the first than in the second category. Relatives predominate in the harvesting scene as shown by the following identities of harvesters for one farmer: two sons of his sister; two of his sisters' sons-in-law; two of his own sons-in-law; two sons of his brother; two of his married landless sisters; the father of his son-in-law; his own daughter; two kinsmen from outside the village; and two neighbours who are the only nonrelatives.

Even when a farmer's relatives come from outside the village, he still uses them for harvesting. This practice, however, is resented by people in the village. As they

say: "If they (farmers) need planters, they look for us, but when harvest time comes, they only take relatives." This comment is a reflection of the value people place on being able to participate in harvesting which in many ways is an income redistribution measure.

(2) *By giving the landless a temporary right to cultivate a portion of the farmer's land.* Of the 31 landless families, 14 were given this privilege during the second crop of 1976 and the total area involved was 5.70 ha. During the main crop, 2.78 ha were lent to eight landless. Sometimes a small piece of vegetable land is also borrowed. In one lending arrangement the landless cultivates the borrowed *land independently.* He decides what inputs to use and when, although the capital comes from the farmer because he is the only one able to obtain credit. After the harvest, the farmer is repaid, including the rent and irrigation fee, for the part of the land borrowed. Decisions to lend land are often at the initiative of the farmer.

A second system gives the landless the right to the total harvest of a certain part of land, but they do not cultivate this portion independently. They help the farmer who lends them the land at different periods during the production such as in harrowing, spraying, and weeding. At harvest time, they are given the crop from a portion of the land. This is not seen by the farmer as payment for the work but rather a way of expressing gratitude and showing the dependency of the landless relative on him. On the other hand, the landless consider the work they do for the farmer as "free labour" and do not relate it to the harvest which they will receive.

A third way of land lending is to allow them to cultivate the school lot for which they receive one-half of the net harvest. This decision is made by the village leaders.

The practice of lending land is a recent happening in the village and has been influenced by two developments. Redistribution can occur only when there is something to redistribute and when the farmer has more than enough for his own family. Before the advent of irrigation, there was a small harvest once a year; now production is not only higher but there are two, instead of one, crops a year. The second reason for the willingness to lend is that some farmers realize that, if they have three hectares, they cannot cultivate it intensively and hence will not profit that much more from the additional land. Hence, they more readily lend a part of it to somebody else.

(3) *Giving relatives direct aid of food or money or credit* without interest is another way of redistributing resources.

(4) *Paying labour reasonable wages.* Farm labour's payment for harvesting used to be one-sixth of the total amount he harvested, but this rate was reduced to one in seven in 1974. Every year farmers meet to discuss and agree on the harvester's share. Because of the high price of inputs, in 1976 many farmers thought of reducing the harvesters' share to one-eighth as a way of improving their net returns, but some of the village leaders objected to it because of adverse consequences especially for the landless. Wages for other tasks, such as those for linesmen in transplanting, have increased. If the harvester's share were converted into cash, the equivalent would be three, four, or more times that of the usual wage rate. As previously cited, in Laguna the sharing rate for harvesters is one-sixth, but in other parts of Nueva Ecija the sharing is only one-eighth or one-ninth. In Davao, it is one in eleven (73).

The analysis done by Peter de Vries indicated that most of the landless derive their income from agricultural wage labour (69% of total household income); followed by production from borrowed land (19%); and 12% from sidelines such as tricycle driving, etc. However, more than 45% of the total household income comes from harvesting.

Certain developments, both institutional and technological, have improved the opportunities of employment in rice production: (a) Irrigation has made it possible to grow two crops instead of one; new technology has also increased productivity. (b) The introduction of irrigation has made the rice fields muddy almost the whole year so that the big threshing machine cannot enter the soggy fields. Threshing, therefore, in such areas is shifting to manual labour. (c) Another complementary development is the implementation of land reform. With the change in tenure status and the accompanying independence from the landlord, the farmer is no longer obliged to hire the large thresher which is often owned by the landlord. This has also resulted in more employment for farm labour.

Harvesting is more than just a job to be done. It is a significant social institution. To receive his share of one-seventh, a labourer has to cut the stalks of

rice, gather, thresh, clean, and carry them to the road or near to the farmer's house. Cleaning or winnowing of the rice is considered as female work. Some men give the job to their wives or daughters and others give it to some old women in the village. Payment comes from the pile of rice before the sharing between farmer and labourers. This means that it is the farmer who also pays for the rice cleaning. Even the snacks eaten by labourers at harvest time are paid from the same pile. Because some grains are left in the rice stalks even after threshing, there are women who recover it and earn some more rice. Around 16 women were found to be performing this task regularly. Further employment is provided by selling of snacks to the labourers. Often rice is harvested during the day and threshed at night. Since the farmers do not watch the process, there is plenty of opportunity to put away part of the threshed rice. Harvesting is a time of abundance and nobody really bothers too much about how much somebody else benefits from it. Even the women who sell snacks do so at high profits. A count of the harvesters in the village showed 124 of them of which 67 are landless. Forty of the 124 are from outside the village. Because they are relatives they stay in the farmer's house during the duration of the harvest. It is important to point out that a farmer will never harvest on his own field. Harvesting is a job given to those who need the money; hence all harvesting is done by hired labour. If a son harvests on his father's land, he is paid a share.

At the moment, there are more farmer-households (59) than landless labour (31) and five are households of landless but permanent agricultural wage labourers in the village. The latter are hired by "absentee tenants" to cultivate their land and are paid a regular wage. Table 68 shows the distribution of agricultural hired labourers, from the landless as well as from farmers' families, given different farm sizes. As expected, among farmers who are cultivating three or more hectares, none of the farmers or their wives is engaged in hired farm work. Only 22% of farmers' wives as against 58% of landless wives hire out their services. In general, almost one-half of the total members of landless labour households, about 28% of the farmer's household with 1.5 hectares or less, and 25% of those with more than 1.5 hectares do hired work. Clearly, the smaller size or complete absence of land to cultivate is a very critical factor in taking on hired farm work. But, in assessing the employment picture, it must be recognized that almost 37% of total hired farm labour from the village are children of farmers and those from farmer families, including the farmer himself; his wife and other relatives make up 55%. Household members from the landless make up only 45% of total agricultural hired labour force. Right now, both farmer and landless families benefit from agricultural employment. For the former, it is additional income and for the latter it is the major source of livelihood. One would expect, however, that in a few years, children of farmers will become landless themselves because there will not be sufficient land to go around when there are about 6 children per family. One way for the landless family to move up the social ladder is for their children to marry into farm families. This opportunity is still available now but is not likely to continue for long as a realizable dream.

Living conditions of the landless vis-a-vis farmers

Casual observations on the socioeconomic conditions at the village level would tell us that even in a poor and small rural community, some households are poorer than others. Farmers are better-off than the landless and, among farmers, those who have larger farms are "richer" than those with smaller farms. In the village studied by Peter de Vries, five out of 95 are cultivating 4 ha farms and three are farming between 3-4 ha each. Although none of the farmers owns the land they are cultivating, having access to land is in itself a source of wealth and power under village conditions because about one-third of the households are truly landless. As described earlier, the latter are dependent on them for employment and sharing of resources such as lending of portions of land and participation in harvesting. Farmers with more than 3 ha live in large hollow block houses with galvanized iron roofs, glass windows, etc. Those with less than 1.5 ha live in small houses, and the landless almost always own nothing but huts made of nipa, cogon, etc. Seven television sets and four jeepneys are owned by these larger farmers. One-half of small farmers (1.5 ha and less) do not have carabao; whereas, among the larger ones, only five are without this working animal. Power-tillers, irrigation pumps, and motor sprayers can only be found in the larger farms. All households with 2.5 ha or more have a child in high school. Among those with smaller farms (less than 2.5 ha), only 50% of them have high school students and, for those with less than 1.5 ha, less than 30% are able to send any children to high school. The college students from the village belong to six families who cultivate on the average 4 ha.

SUMMARY AND CONCLUSIONS

Recent rediscoveries of the "poorest among the poor" have led to the realization that perhaps farmer's labourers are more deprived and poorer than farmers. In carrying out his farming activities, the farmer becomes an "employer", hiring labourers to assist him and some of his family members. This chapter describes ten different aspects of the farm labour situation and tries to identify some of the issues associated with it: an estimate of numbers; and farm labour patterns including who the farm labourers are; patterns of labour utilization; tenure status and use of hired farm labour; patterns of hiring; labour absorption in the farm; wage rates, regularity of employment, and labour mobility; job preferences; the farmer and the landless; and living conditions of the landless.

The farmer's labourer - an estimate of numbers

The 1970 Census indicates that one-quarter of the total labour force are farmers and farm managers and another one-quarter are farm workers whether paid or unpaid. A rough estimate of the number of landless farm labour households is 10%; whereas, households of farm owners and farm tenants each make up more than 20% of total Philippine households. Looking at the agricultural labour force, farm workers are almost as numerous as farmers and farm managers (45 and 48%). There are more farm workers than farmers among females which make up one-fifth of the agricultural labour force. Farm workers tend to be younger than farmers. A tightening land situation is suggested by the fact that, in the younger age group, there are more farm workers than farmers. Because of population pressure, we can only expect a decrease in the availability of land. Prior to land reform, share tenants and lessees were regarded as landless because they did not own the land that they cultivated. Now the definition of *landless* means those who do not have access to land at all and they can only work as hired farm labour.

Compared with farmers, even the smallest farmers in the village, the landless are much more deprived. Seventy-four percent of them live in huts or very small light-material houses which are meagerly furnished; one-half of them do not have chairs although most have a clothes closet. Seven of these families do not have a transistor radio, an item which is rather common in the village.

Farmers not only have land to cultivate but they also have homelots. On the other hand, only five of the landless households own their homesites. They were former land-owners who sold their land except for their homelots. Twenty-three landless families built their houses on somebody else's land with permission; three are just squatting by the roadside.

Only four children from the landless go to high school and many of those who are in the elementary school are not doing well academically. All the leading pupils in school are farmers' children. Perhaps one reason why few landless children continue with secondary education is their need to help in earning a living.

Only three of the landless families have a carabao; one has a blower for cleaning rice. In general, besides being landless, they also do not have the capital, skills, and other resources to engage in more remunerative side jobs such as tricycle driving, tailoring, etc.

Another village study done in Bay, Laguna, reinforces Peter de Vries' observations with regard to the plight of the landless. They have meager housing and hardly any material possessions. More of their children have dropped out of school because of poverty. Almost one-half of them expect only primary and intermediate level of schooling for their children. Despite the fact that more than 50% of their wives are engaged in paid farm work, their incomes are much lower than farmers (151). The landless seem to be the "poorest of the poor" within the village. Although they are not starving, they consider their life as one of *walang asenso* (no progress) and little hope for the future.

Farm labour patterns

The farmer's labourers

In several stages in the rice production process, labour in the farm is neither performed by the farmer nor by his family but by others. Five types of *hired farm labourers* have been identified: farmer-hired labourers; children of farmers; "pure" hired labour (landless); children of "pure" hired labour (landless); and landless hired labour with farm-cultivation privileges. As expected, the highest earnings went to farmer-hired labourers, followed by landless hired labour with farm cultivation privileges. There is little information available as to which of the five types of farm labourers is used on rice farms. In some places, pulling seedlings, transplanting, and harvesting are done by the landless; whereas, in others, the preference is for farmer-labourers. We need to keep this distinction in mind if we are to understand the plight of the landless.

Patterns of labour utilization

Farm labour can be supplied by the *farmer himself, his wife and/or children, hired labour, exchange labour,* and *free labour.* The labour input of the farmer and his family is only a small portion of the total labour required. There is more hired labour used regardless of tenure status and farm size. Labour paid in share of the harvest is worth much more than what a daily cash wage would be, but the traditional practice persists as a way of sharing the harvest with the landless.

In examining the employment situation in rice production, certain trends are evident: (1) There is an increase in overall labour absorption due to increased weeding, harvesting, and threshing, and due to doubling or tripling of cropping intensity. (2) There is a definite trend toward greater use of hired labour rather than family or exchange labour. (3) Actual labour costs are higher than total cost of material inputs such as fertilizers, etc. (4) The proportion of production costs which went to land rents has declined, but the amount paid to hired labour has gone up. (5) Rice production absorbs more labour than does imported inputs. (6) The need to have cash for labour is clearly recognized and is provided for in the typical budget for farm loans. (7) The labour-absorbing impact of better irrigated land is shown by the fact that the cost of hired labour for first-class irrigation is one- and one-half times more than that for third-class irrigation. Irrigation, therefore, benefits not only the farmer but also the farm labourer.

Tenure status, off-farm work, and use of hired farm labour

One problem which concerns both land reform and employment is the question of the relationship between tenure status and farmer's off-farm employment. It has been argued that, because of the disincentives in the sharing system, the tenant will not be very inclined to invest much of his own labour on the farm. If this were so, a change in tenure status from share tenant to leasehold to amortizing ownership or being an owner would increase the application of the farmer's labour on his own farm and decrease the time engaged in off-farm work. A review of several studies indicates that farmers from different tenure groups do not differ much in the proportion engaged in off-farm work. They also do not differ much in the amount of hired labour input used. There is some evidence that share tenants use more family than hired labour. But regardless of tenure status, all the evidence shows that there is more hired than family labour and the proportion of hired to total labour has increased. Owner-operators and leaseholders use as much as 80% hired labour. Amortizing owners used more hired labour after land reform. Credit also has a positive effect on use of hired labour.

All this empirical evidence leads to the observation that perhaps it is not tenure status per se which determines the amount and type (family or hired) of labour which will be applied. Four possible explanations are offered for the lack of relationship between tenure status and use of hired labour: (1) It is the access to capital to pay labour rather than tenure status as such that determines the use of hired labour. (2) The demands of rice production are such that the farmer and his family are unable to cope with all the labour required, especially in the light of limited labour potential actually available in the household. (3) Rice farming is such a physically demanding process that, if he can afford it, he is happy to be relieved of the hard manual work. (4) Perhaps social pressures from the community make it unacceptable for a farmer and his family not to hire outside labour as a way of sharing.

Patterns of hiring

Labourers obtain farm employment as *individuals*, as a *family*, as *members of a loosely organized work group*, as *exchange*, or as *communal* labour. The practice of hiring out services as an individual or as a family is effective when previous contacts have been made or when there is not much competition. One arrangement which has evolved is the *gama-system*, whereby the labourer agrees to weed the rice fields and is in turn assured the right to harvest for a share. This means that harvesting is contracted in advance. In the *work* group system, a leader contracts the job for the group and work is shared among the members. This is advantageous for new and young recruits who have no contacts and little skill because he is taught the basic farm skills by the leader.

Available evidence suggests that exchange labour is going out of style except in less developed places. In such areas where it is minimally practiced, exchange labour usually occurs only in land preparation. Free labour rendered without expecting any return favour is seldom given except in emergencies.

The Philippine rural community has always been romantically described as a "bayanihan" society where villagers give of themselves and share their resources and labour for the common good. While mobilization of voluntary labour is not infrequently observed, the motivation for contributing their labour to communal undertakings is not necessarily altruistic. This has been aptly demonstrated in a communal irrigation system project where the individual's incentive to participate is closely related to the expectation that the rehabilitation of the irrigation system would lead to substantial benefits to himself.

Labour absorption in the farm

An analysis of labour absorption in different categories of work crops such as mainly rice, mainly coconut, rice plus sugarcane or rice plus coconut, and other crops or job combinations indicated the following patterns:

(1) Those working mainly on rice are subject to seasonality. Only slight variation is seen for those working on rice-sugar or rice-coconut and very little for those working on coconut or other crop and job combinations.

(2) Although employment in rice is more seasonal than coconuts and sugarcane, there is more work available during the periods when it is in season. In other words, labourers in coconut and sugarcane work throughout the year but they have fewer work days each month. Seasonal variation is, therefore, partly compensated by higher intensity of work when it is available.

(3) During the slack periods of the year, female farm labourers do household chores. Some labourers move to where there is work; farmer-labourers supervise the farms they are cultivating; others do odd farm and nonfarm jobs; and others claim they do nothing. For the four categories of work crops, more than 60% of farm labourers have no other job but farm work. Three-quarters said they are able to find work thoughout the year.

(4) Of the four groups, coconut workers expressed greatest satisfaction with the wage rates for the tasks which they performed. They also earned the highest income from sources other than hired labour. Their advantage lies in the privilege given them to farm other crops under and between the coconut trees without giving a share, or only a minimal share, to the landowners.

(5) The median income from all sources for all workers was very low, barely enough for basic needs.

(6) Those who are affected by seasonality earned more from hired labour compared with those who are less affected by it. On the other hand, those less affected by seasonality appear better able to plan their sideline income sources, to hold a diversity of odd jobs, and to earn more from all sources than those completely dependent on hired labour.

Wage rates, regularity of employment, and labour mobility

In rice production, the highest paid task is rice harvesting, which is also the most preferred because of payment in kind as a percentage of the harvest. Transplanting has the lowest wage. In coconut production, the lowest wage is for weeding and the highest is for hauling the nuts. Where food is provided, wages are lower, but this practice has declined owing to high food cost. Farm workers may be regular, casual, or contractual. Regular does not mean permanent. It is more of an informal, unwritten

expectation that one can continue working for a farmer each cropping season. A contractual worker is part of a work group which changes in composition from one season to the next. The *casual* obtains work only on an *ad hoc* basis and is at the *bottom of the totem pole* among farm labourers.

Farm labourers do not seem to travel far to obtain work. Most of them work within the same village or the same town. Very few go beyond that.

Job preference for themselves and their children

If they had a choice, farm labourers would prefer jobs where they do not have to work hard physically, such as in office, factory work, and business. Those with little schooling would prefer farming and hired labour. As predicted, 90% of them would like a college education for their children and very few would wish them to be farmers or hired labourers.

The farmer and the landless at the village level

An intensive village study shows that the landless were migrants who came for reasons of a family member's marriage to the child of a farmer or were those who sold their land as a result of gambling or for some other reason. To marry into a farmer's family is upward mobility for the child of a landless family, not only for himself, but for his entire family. The landless are not a distinct social group with a class consciousness. Residentially, they do not live apart but are mixed with farmers. They identify themselves with the family or the clan which is composed of both farmers and landless. Even work groups are mixed. When farmers and landless belong to the same clan, income redistribution occurs in four ways: (a) by giving work to the landless, particularly harvesting; (b) by giving the landless temporary right to cultivate a portion of the farmer's land; (c) by giving direct aid of food or credit without interest; and (d) by paying reasonable wages. Their most significant source of income is harvesting which is an important social institution for sharing with others. A farmer will never harvest in his own field. Hired farm work in the village studied comes from both farmer households and landless households. For the former, it is additional income; for the latter, it is the major source of income.

Living conditions of the landless vis-a-vis farmers

Even if farmers do not own the land that they are cultivating, access to land is in itself a source of wealth and power under village conditions because the landless are dependent on the farmer for employment. Landless families seem to be the "poorest of the poor" in the village, in terms of housing, homelots, education of children, and material possessions. While they are not exactly starving, they consider their life as one of *walang asenso* (no progess) and little hope for the future.

CHAPTER V

FAMILY AND HOUSEHOLD: THE MICROWORLD OF THE FILIPINO

What is the Filipino family? To put it succinctly, positively, and perhaps sentimentally: The Filipino family, large and functionally extended as it is, provides social security, old age pensions, jobs, scholarships, unemployment benefits, nursery services, credit land, labour, capital, income redistribution, work sharing, companionship to the unmarried, care for the sick, home for the aged, counsel for the troubled, and most of all, love, affection, emotional sustenance, and social stability without which a Filipino's life is meaningless. On the debit side, the Filipino family has often been accused of harbouring nepotism, encouraging dependency, supporting social parasitism, promoting prolific child-bearing, which are all inhibitory to the Filipino's integration into the community and larger society, and hence dysfunctional to national development efforts. The family's influence pervades every aspect of Philippine life and has its corresponding positive or negative implications for many a development program whether it be family planning, nutrition, cooperatives, development, land reform, education, credit, community development, employment generation, etc. Unless we understand the family and the household, the design and implementation of rural development programs will always be somewhat lacking in perspective. And when program objectives are not met or as we usually put it, "when the program fails," we may have at least one factor to examine. Years of development experience have shown us that there seems to be a continuous harmonizing of national and family goals. It is not always clear as to which accommodates which and what happens to both sets of goals during the harmonizing process.

At the moment, the family appears to be the mirror of society rather than vice-versa. In short, the family is the "small world" of the Filipino and it is difficult to comprehend why he behaves the way he does unless we have some appreciation for the family and household in which he lives. We realize, however, that there is quite a bit of romanticism, and perhaps even mythology, surrounding the family. Hence, there is a need to sift empirical evidence from romance and fiction.

This chapter presents what we know and have learned from research with respect to the following: (1) Concepts of family, kinship, and household; (2) family structure in the household; (3) size, age, and sex composition of the household; (4) home ownership, house structure, and sleeping arrangements; (5) household composition and the family life cycle; (6) the Filipino household compared with those of other countries; (7) household composition and patterns of assistance to relatives; (8) family obligations and entrepreneurial behaviour; (9) the large family and the meaning of children; (10) socialization within the family; (11) task allocation and task performance in the household; and (12) patterns of decision-making.

Concepts of family, kinship, and household

The meaning of family seems so self-evident that one never bothers to clarify the point of reference, but perhaps its unquestioned ambiguity contributes to stereotyped thinking as to what is the Filipino family. First, a distinction should be made between the concept of *kinship*, *family*, and *household*. According to Williams, the kinship system is a "pattern of social norms defining interpersonal relationships relating to the facts of birth and of the birth cycle" and prolonged human infancy which requires extended adult care is regarded as the central fact of all kinship systems. The selection of marriage partners, the marriage bond, the immediate conjugal (nuclear) unit and the extended kinship relations beyond the immediate conjugal unit are the four main categories of social relations based on actual or potential births" (343, p. 34-37). What is important in the concept of kinship is the sets of relationships established among persons linked by facts of birth and marriage. In the Philippines, we have a bilateral kinship system whereby relations are recognized from both the father's and the mother's side. But the strength

of the bonds between relatives is not necessarily dictated solely by the degree of affinity. There are "close" relatives who are distant and distant relatives who are close. This distance between relatives is better appreciated from the reference point of a particular family. In this connection, it is useful to keep the distinctions between *family of orientation* and *family of procreation*. The *family of orientation* is the "family of father, mother, brothers and sisters into which a given individual ego is born; the *family of procreation* is established by Ego's marriage and consists of his spouse, sons and daughters. Ego is the only common member of the two families" (343, p. 50-51). A family as an actual group of persons participates in many common activities, shares in many functions, and members identify with each other in a bond created by blood relations or marriage. The Filipino's definition of family includes the family of orientation and the family of procreation both of which extend bilaterally.

Because the term "family" is so encompassing, it is important to identify the operational unit within which family relationships that obtain among its members can be observed. This is best accomplished by starting with the concept of *household* which refers to a group of persons living together and sharing the same housekeeping, kitchen, and eating arrangements. A house means the physical structure where people live, but it is possible to have several households in one house, as long as these groups of people maintain a sense of separateness in the operations of their kitchen. A household may contain both family members and nonrelatives. The fact of residence in the same house and of close interaction with other members of the household is important by itself for a number of reasons:

(1) The composition of a household determines the nature of interpersonal relations among its members.

(2) The household is a meaningful social unit. It establishes the identity of the individual and becomes the basis for social interaction in the community, for it is the primary social unit to which the individual belongs. Exchange of labour, borrowing and lending activities, contributions to fiestas and other community undertakings, social participation, representation in community and organizational affairs, and general social status are usually based on the household.

(3) Decisions about day-to-day living such as food, clothing, shelter, chores, expenditures of income, and the overall style of life are made mostly in the context of the household, for it is a basic consumption group. In many instances, it is also the basic production and earning unit in the sense that most of what is spent in the household is also earned by household members.

(4) Most studies on the family are based on data obtained from households as the functional units of analysis. Although family relationships transcend much farther than the members of the household, it is usually from there that other relationships are traced. The household is the simplest and most convenient point of reference and, for this reason, it is used as the sampling unit in census enumeration. A respondent can readily provide the names of the household members and their relationship to the household head.

(5) In farming communities, household composition, size, age of the household head, and stage in the family life cycle determine to a large degree the amount and quality of available physical family labour for the farm. This, in turn, affects size and organization of farming operations.

The nuclear and extended family household

Using the household as a frame of reference, a *nuclear family* is defined as one which contains father, mother, and unmarried children, whether natural or adopted. A household which includes relatives other than husband, wife, and unmarried children is considered as an *extended family household*. But the nuclear or extended classifications are not really discrete categories. A household may be residentially nuclear but functionally extended. From an analysis of concepts and studies of extended family relationships, the following elements appear to be the characteristics of an "ideal type" extended family: (1) relatives other than husband, wife, and unmarried children sharing residence with, or living adjacent to, the nuclear family; (2) recognition of kin relations either of a lineal (vertical) or of a collateral (horizontal) character; (3) a pooling or sharing or joint ownership of resources which is usually formalized or legally recognized; (4) recognized common responsibilities to each other; (5) common family or ancestor worship; (6) reciprocal assistance patterns; (7) joint activities either in

production or consumption or both; (8) maintenance of expressive or sentimental relations among extended family members such as visiting, letter-writing, etc; (9) use of the extended family as a reference group in decision-making; and (10) authoritarian control over relationships and decision-making based on age, command over resources, degree of affinity arising from blood relationships, etc.

While these elements are not mutually exclusive, empirically, extended families may actually distribute themselves in a continuum, based on the number of such elements present and the degree to which these "ideal type" characteristics manifest themselves. But there are other considerations which complicate the structure of the extended family, such as:

Number of generations reckoned in an extended family

Although the typical image of an extended family is multigenerational, i.e. having three or more generations living together, at least three types of groups easily categorized as two-generational or unigenerational can be classified as "extended." To illustrate, (a) a household of husband, wife, plus husband's or wife's siblings is unigenerational; (b) a household of father, mother, married child, and his spouse is two-generational; and (c) a household of two or more married couples may be unigenerational.

Lineality or collaterality of kin relations included in the extended family

Lineality refers to the generational affiliation of the relatives who are attached to the nuclear family such as that of the parent-child-grandparent composition of the household. This is also known as *vertically extended family*. On the other hand, the *horizontally extended family* contains collateral relatives such as siblings or cousins of the husband or wife who belong to the same generation. When both types of relatives are present in the same household, it is considered *vertically and horizontally extended*. However, it is not the lineality, collaterality, or number of generations of extended relatives living in the household which is crucial, but rather the extent to which their presence alters the patterns of relationships within the nuclear family. For example, a sister-in-law may bring more strain in the relations than a grandparent, although a generation gap poses another type of problem.

The extended family as a kinship or domestic unit

Implicit in many studies and definitions of the extended family is the observation that, where there is shared residence and/or household, there is a higher degree of extendedness because of the greater opportunity for more frequent interaction and the extent to which living together puts members in a common decision-making frame for such matters as the allocation of work, space, and the preparation of food, etc. However, a shared or contiguous residence is not a necessary element of the extended family membership. The absolute essentials for the extended family seem to be: recognition of kin relations beyond that of husband, wife, and unmarried children; shared responsibilities; and maintenance of expressive and emotional relations beyond the nuclear family. If these three elements are not present to any degree, then the extended family is nonexistent, a phenomenon which probably does not occur even in the most modern society.

The traditionality or modernity of the extended family

The extended family manifests itself in various degrees in traditional, transitional, and modern societies. Perhaps, the direction of changes occurring in the extended family is reflected in the following five definitions:

(1) Hagen's extended family of traditional societies which appears to be closest to the ideal type - made up of "several generations in which all feel responsible for all." In the extreme form of the extended family, the economic resources of the family are pooled and made available to every member subject to the judgment of the family patriarch, thus constituting a crude but effective type of social security. Such a thing as an individual venture is virtually unknown. "Every economic act is taken in the name of the family and the associates in the economic activity are members of the family" (163, p. 65-66).

(2) Husain's different degrees of jointness ranging from (a) *a completely integrated structure* involving full residential jointness and joint consumption on the part of members, joint participation in production and economic decision-making; (b) *full residential jointness and joint consumption but no participation* on the part of some members in the predominant form of family production although full contribution by them to family income and considerable participation in economic decision-making; (c) *to a large*

measure of residential jointness and joint consumption but no participation in production and very little of economic decision-making on the part of the absentee members; and finally, to (d) *no residential jointness at all but joint ownership of family property and capital*, joint participation in production and economic decision-making and instead of joint consumption, sharing of the family income (177, p. 268-270).

(3) Iijima's *minimally extended family* which consists of a nuclear family and the parents of either husband or wife sharing the same household (178, p. 91-105).

(4) Litwak's modified extended family which does not require the elements of common residence but renders significant aid to relatives outside the nuclear family (212, p. 385).

(5) Stuckert's *extended family* as a *reference group* where the more classical features are no longer present but maintenance of emotional unity with extended family members is still of some concern (312, p. 301-307).

The transition from Hagen's to Stuckert's definition very roughly corresponds to the movement from traditional to modern society with the ideal features of the extended family becoming less and less binding to members as one moves toward modernity. It is erroneous, however, to assume that the classical features can be found only in traditional society or that the modern elements exist only in highly developed societies. There is a tendency for the traditional and modern features of the extended family to coexist in certain degrees and combinations within a particular society, although some elements are more characteristic of developing societies and less of developed societies.

Family structure in the household

Using the household as the anchor and reference point for the family, Castillo et al. (63) analyzed several Philippine studies done in different parts of the country from 1954 to the 1970's and found that, except for the study done in Malate, Manila (129), there were more nuclear than extended households. The latter is defined as: a *household which includes relatives other than husband, wife, and unmarried children.* The Manila study reported a higher proportion of extended than of nuclear households. The average size of the households ranged from five to seven members. Even when nonnuclear relatives were present in the household, the average number of such persons is less than two. All these show that as a residential unit, the majority of Filipino households are made up of the nuclear family and those households which are extended are only minimally so.

At the national level, the 1973 National Demographic Survey from the Population Institute, University of the Philippines, provides more recent and more comprehensive data (Table 69). There is a higher proportion of nuclear family households in the rural (77%) than in the urban sector (60%). Metropolitan Manila, which is the most urbanized centre in the country, reported the lowest proportion of nuclear households (59%) and the highest incidence of extended households. The regions with the most nuclear households are Bicol, Southern Mindanao, and Northern Mindanao. Next to Manila, Ilocos and Cagayan Valley reported the most extended households. However, for the country as a whole, the one-family one-household arrangement predominates (87%). An analysis of household members' relationship to household head indicated that 92.1% are made up of: 34.4%, husband; 28.8%, wife; 15.7%, son; and 15.7%, daughter. Relatives other than nuclear family make up only 5.5% of all household members. There is a scattering of grandmother, parents, brothers, sisters, cousins, nieces, nephews, grandchildren, sister-in-law, and aunt of the couple. Only 2.4% of the household members are unrelated to the household head and his wife, and the majority of them are domestic helpers. In general, therefore, the Filipino household is nuclear, composed only of husband, wife, and unmarried children. The households which are extended are only minimally so. Large household size is due mainly to many children and not to the presence of other relatives. But these households, with more than six members on average, live in small homes of which more than one-half are only one- or two-room structures; hence, room *density* is quite high. The highest density households are in Ilocos, Bicol, Western Visayas, and Southern Tagalog because they have the highest proportion of one-room houses.

The trend toward more extended family households in the urban rather than in the rural areas is contrary to what one would expect theoretically from the impact of urbanization on household structure. It would seem that the nuclear household would be most functional in an urban setting and extended households would be characteristic of more traditional rural communities. The reverse phenomenon which occurs in the Philippines requires some elaboration. Carroll et al. offer two explanations for the greater proportion of extended households in the urban and economically better-off settings: (a) The

possibility of urban families being economically better-off than rural relatives and the tendency for kinsmen to gravitate toward the more affluent members; and (b) the possible flow of rural family members to the urban areas to study or work, in which case they seek their kinsmen and join their household (59).

Eslao in her study has similar explanations for the high proportion of extended households in Malate, Manila (129): (a) A significant portion of the younger families who have been able to establish their own households are joined by persons from the provinces who do not contribute to the household income. In effect, these families are independent but they assist needy relatives. (b) The high cost of housing has brought the family together with relatives or nonrelatives in order to solve a common problem. For example, in her study, Eslao found 23 households had 57 nonrelatives staying with them - boarders, ritual kin, townmates, or friends. Seventy percent of these persons are paying members of the household on a semicontractual basis and, therefore, assist the families in meeting exorbitant rents. Ritual kin and friends give what they can afford on a noncontractual agreement. What is significant in Eslao's findings is the fact that nonrelatives try to limit their imposition on the host family by paying or reciprocating in the form of rice, fruits, or vegetables from the province (in the case of nonpaying extensions). The latter stay only for a short time under this arrangement. Those who live with the family for at least a year manage to pay somehow. Nonpaying, nonnuclear relatives such as siblings, nieces, nephews, etc. are welcome extensions to the household, especially when the wife works and, therefore, needs help with children and household chores. In this sense, the nuclear family and the extensions to the household both derive advantages from the arrangement. In other words, the extended household is not necessarily a one-sided burden on the nuclear core. It could also be the nuclear family's solution to the tight and expensive housing situation in the city and, at any rate, it is rarely a permanent arrangement.

For further insight into factors related to the extended family household, Table 70 shows that there is a steady increase in percentage of extended households as income, education, and occupational level increase. To illustrate, at the highest per capita income level, 29% of the households are extended; whereas, at the lowest income bracket, there are only 13.4% of such households. Thirty-four percent of college graduate household heads live in extended households; whereas, only 18.3% of those with primary schooling do so. Those in the professional, administrative and managerial category have 36.4% in extended households; whereas, farm labourers at the bottom of the occupational ladder have only 12% living in this arrangement. Whether it is for ethnic group or economic reasons, Tagalogs, Pampangos, and Ilocanos report more extended households than Bicolanos and Visayans. One general observation which can be made from Table 70 is that *affluence and better socioeconomic status are supportive rather than inimical to the survival of the extended family.* This is again contrary to the experience of Western countries. In other words, the better-off the family is, the more capable it is of meeting the need to share residence with relatives other than members of the nuclear family. One can also infer that the more affluent households most likely have more spacious homes which can accommodate additional members.

Other features of the extended compared with the nuclear family household can be gleaned from Table 71. Among the 65-year-old members of the household, more than one-half of them live in extended households. More of the older than the younger household heads live in similar circumstances. For example, 40% of the 65-year-old heads have extended family households; whereas, only 15% of the 34-year-old and younger heads find themselves in such households. These arrangements, no doubt, take care of the problems of aging parents and grandparents. As expected among the larger households, there are more extended than nuclear families.

Size, age, and sex composition of the household

Since the household is a basic decision-making and operational unit, especially in the rural areas, for members' participation in production, consumption, livelihood, community, and national activities, the decisions made in the household and the activities of its members contribute in no small measure either to the achievement or nonfulfillment of national goals. What is the typical household made of?

The average Filipino household has more than six members, about three males and three females, with the urban slightly larger (6.43) than the rural (6.08) (Table 72). Of the six members, one is 4 years old or younger, two are 5 to 14, and three are 15 and older. This means that, besides the father and mother or husband and wife, there is one young adult, two school-age children, and one young pre-schooler or toddler. In the rural

setting, the young adult (particularly the male), would be a definite contribution to farm labour or he would be an expected breadwinner in some other way. A female young adult would be the mother's help in household chores or she would work as unpaid family, or occasionally hired, farm worker. If the two school-age children are not in school, they are also called upon to perform farm and household chores. Taking care of a younger one is a frequent responsibility. It should be noted that the six-member household is not the complete family because about two members have already left to establish their own households. There is an irony in the fact that, despite many children, the actual farm labour force available to the household is roughly two persons and part of the wife's time. The total number of members in the household aged 15 years and older is 3.33 and the number of those 14 and younger is less than three. This means that the dependency burden on the members of working age 15 and older is practically one to one. They have to be quite productive to bear this burden.

As previously mentioned, the majority of households contain only the immediate family members and more than 93% do not have any unrelated persons living with them. Despite this, almost one-third of the households have eight or more members. More than 90% of all households have male heads and, of the 10% which are female headed, about two-thirds are widows. Although the one-person household is a rarity, the proportion of such households has increased from 0.6 in 1968 to 1.4% in 1973 (Table 73). What is significant and worth noting in this trend is the age of the one-person household occupant. The median age of the male in this solitary life was 46 years in 1968 and 47 years in 1973. On the other hand, the female "loner" was 61 years in 1968 and almost 64 years in 1973. Although the incidence of this "living alone" system is still negligible, there is some evidence that this is beginning to happen among the aged, particularly the older women.

Home ownership, house structure, and sleeping arrangements

One of the things in life where rural families appear to have an advantage over the urban is *home ownership*. Data from the Family Income and Expenditures Surveys of 1961, 1965, and 1971 revealed the following proportions of owner-occupied dwellings:

	1961	1965	1971
Total families	92.8	91.7	87.8
Total urban	83.3	77.6	68.4
(Other urban areas)	93.1	90.1	80.8
(Metropolitan Manila)	52.3	48.5	35.6
Total rural	97.6	97.7	96.2

From these figures we can see that not only is the rate of home ownership much higher in the rural than in the urban sector, but there is also a declining rate of home ownership over a 10-year period with Metro Manila exhibiting the lowest proportion of family-owned homes. Many of the rural homes, however, are makeshift and made of light materials such as nipa, cogon, bamboo, coconut trunks, a few pieces of lumber, etc. Because it is relatively easier to put up a house in the village than in the urban areas, it is also easier for a rural couple to establish a household separate from their parents, thus creating more nuclear than extended households in the village. The problem of housing, therefore, is not as serious an obstacle to starting a new family in the village than it is in the city. This could also be a contributory factor to high fertility as there appear to be fewer housing constraints in terms of their own place of abode, albeit under rather "primitive" living conditions.

Much more discouraging is the situation with respect to lot ownership. As shown in Table 74, in 1968, only one-half of Filipino families owned their homelots; in Manila, only one-quarter. The highest proportions of lot owners are in Ilocos and Cagayan with 80 and 75%, respectively. Occupancy of rent-free lots is highest in Western Visayas, followed by Northern Mindanao, Bicol, and Central Luzon. This means that the phenomenon of *squatting* on land that is not theirs is not a peculiarity of city residents. Even in supposedly "land-rich" areas like Mindanao, the proportion who do not own their homelots is quite high. Again, we have to understand the plight of many poor rural families living in small, temporary houses built on "borrowed" land. Perhaps there is nothing more aggravating to a family than to face the prospect of being asked at some time to "remove" their home from its moorings. Security of tenure, therefore, pertains not only to jobs and farmland but also to "where one sleeps." Again, however, it must be

remembered that this problem concerns the rural as much as the urban family, although the urban squatter problem always seems more urgent and more depressing than the makeshift huts which dot the countryside. Because of population growth, rising land prices, and increasing cost of contruction, we can only predict a worsening rather than an improvement in the future unless some drastic steps are taken to reverse present trends.

Another interesting finding relevant to home ownership is the *curvilinear relationship between income levels and the proportion of families who own house and lot.* In a study of four communities with different socioeconomic circumstances (61), the highest proportions of ownership (78 and 76%) are located at the two extreme, lowest and highest income levels. The middle income families have a much lower percentage of home and lot ownership. Based on this observation, we might deduce that, for the lowest income families, a house is a mere physical shelter from cold, wind, sun, and rain. This house which represents a place to live in could be constructed on any available lot with or without the permission of the owner. As the income level goes up, the family's aspiration regarding their place of residence rises but their income is still beneath this aspiration. Hence, they look for more acceptable houses but on a rental basis. At the highest income brackets, the amount of money earned tends to be more commensurate with their housing aspirations and, therefore, at this level, more families become owners of house and lot. Although high income and very low income families both exhibit high rates of home ownership, the former have more of the solid and expensive homes and the latter the small and temporary ones. Hence, home ownership *per se* does not constitute a sufficient status symbol except within the same socioeconomic circumstances, so that among the poor, where all houses are huts, to own one's home means more than not to own one. Among the well-to-do where homes are comfortable and attractive, being an owner is a status symbol. As income rises, the family may consider the type of house and its location, but they do not build until their income reasonably matches their aspirations. Obviously, in the urban areas, house and lot are extremely expensive and difficult to acquire and, therefore, there is greater pressure not only to rent but to share housing with relatives, especially in towns and cities where job and educational opportunities exist.

Since a major part of the rural family's life is lived at home, a more detailed description of house structure and living arrangements in these houses is presented from intensive personal observations made by Ilan, Valera, and Lu in three villages in Laguna (179). Five general types of houses were identified:

Type I: One-story on stilts - This is the conventional nipa hut on stilts. The floor is usually made of bamboo. The ground floor (i.e. under the house) is generally used as storage area for all sorts of tools and equipment (e.g. for fishing and farming). Animals are also kept under the house. In several houses, the ground floor is fenced around and serves as a duck pen. Almost one-half of the 292 houses studied belong to this type.

Type II: One-story - on ground - This type of house has for its ground floor either concrete or earth which gets muddy when it rains hard. If the ground floor is not made of concrete, a "papag" or low bamboo bed is usually present. In some cases, the "papag" occupies nearly one-half of a small house. As such the "papag" is used not only for sleeping but also for dining and living areas. About 13% of the houses are of this type.

Type III: One-story and "hulog" - "Hulog" is the term applied to an extended roof, thus covering a portion of the ground area which becomes an additional house space commonly used as an all-purpose living room and kitchen without a defined wall. The "hulog" is generally made of dried coconut fronds or nipa reinforced with pieces of iron or wood. This "hulog" quite often represents a later addition which enlarges the space available in the house. About 19% of the houses were of this type.

Type IV: One-and-half-story house - In the few cases observed of this type, the half-story is either an extension or additional space used as a small store.

Type V: Two-story house - A little over one-fifth of the houses belong to this type and they are usually owned by the better-off families. In one of the villages where embroidery is a cottage industry, the ground floor, generally made of concrete, is used as the shop for the embroideries and as the living room, dining room, and playpen for children. The upper floor is reserved mainly for bedroom.

Further scrutiny of all these house structures shows that over one-fifth are one-room houses, i.e. there are no visible divisions to separate rooms. This means that practically all family activities are conducted in this one room. Toilets and/or bath-

rooms or whatever structure serves as sanctuary for bowel rituals are usually located in the backyard or elsewhere. The sandy soil in two of the villages serves as convenient receptacles for such physiological releases, especially among the younger children.

The one-room setup affords little privacy for the family members. Furthermore, many of the activities are conducted outside the house. Needless to say, evenings would witness family members sleeping side-by-side.

More than one-quarter have two-room houses in the sense that two separate rooms could be identified. For instance, a house has a "silid" (small bedroom) and a living room which also serves as bed space at night. In some cases, they have a one-room setup with a "balkon" (a porch used as living room) - a common feature of rural houses. About one-third of the houses have three to four rooms and one-tenth have five to six. As expected, the larger houses have more rooms and are owned by higher income families. They also have more household items than the one- or two-room homes.

Sleeping is the most intimate of family activities and, to the educated middle and upperclass, it is regarded as most "private." But in a one- or two-room house, how does the poor rural family adapt? Again Ilan, Valera and Lu give us a descriptive account of sleeping arrangements in three villages. These are spotlighted in this chapter, not for mere curiosity's sake, but for their implications on parent-child relations, family planning or the lack of it, the Filipino's predilection for family togetherness, and the minimal preoccupation with "privacy" which is so highly valued in Western developed countries. An account of sleeping arrangements in rural homes is as follows:

"Families in the rural areas, regardless of income level, usually sleep on mats. The more affluent families actually might have beds but sleeping on mats is still preferred. In many cases, mats instead of bed sheets are spread on the bed.

The mat is laid on the floor and a mosquito net is hung above it. Pillows are then aligned on one edge of the mat to designate the place for the sleeper. As many as ten parents with eight children - could be accommodated in a large mat. As a rule, the youngest child sleeps next to the mother; while the second to the youngest, next to the father. The other children sleep next to their favorite siblings. When the children are younger, the parents each occupy both ends of the mat with the understanding that intimate relationship could take place after the children have gone to sleep. There are instances, when a child would awaken, thus, interrupting the relationship to the disgust of the couple, particularly the father. Children who have witnessed their parents in the act demonstrated curiosity but later manifested guilt when reprimanded by parents. In the children's verbal responses, however, there are references to sexual parts and acts. Compared to their urban middle class counterparts, these children speak more directly about sex. Furthermore, these are sometimes part of their make-believe activities.

Thus, it appears that the sleeping arrangement, especially in a one-room set-up could unwittingly initiate a young child into "sex education" earlier and in a more direct way. As regards the value of this experience for the child, there are conflicting views.

Furthermore, in an arrangement where a child huddles close to another person in his sleep there is an assurance of sufficient warmth and security. Thus, this becomes part of the child's psychological make-up which he carries on to adulthood. Thus, he would continue to seek company, shun loneliness like a disease. In the villages, a person who has tendencies to be a loner and/or individualistic is looked down upon and suspected of starting lunacy.

On the health side, such sleeping arrangements contribute to the prevalence of respiratory infections among children in the villages.

Seven patterns of sleeping arrangements have been identified:

(1) *Parents and all children sleep in one place.* More than half of all households indicated that all family members slept together in one place.

(2) *Parents and some children sleep in one place.* As children grow older, they are entitled to sleep on separate mats. Therefore, only the youngest children remain with their parents. (Fourteen percent of households have this arrangement). This practice usually has a marked effect on the youngest child - he might sleep with his parents up to the time of puberty. There is a corresponding effect on his social behavior - he might become too dependent on them and vice-versa. Several observations of youngest children (at various age levels) in relation to their parents reveal a mutual dependency on each other for psychological support.

(3) *Parents sleep separately from children.* This sleeping arrangement applies to couples whose children have all grown up (8 percent). If the house has enough rooms, the children have their own. Same sex children generally share the same room.

(4) *Family members sleep separately but in the same room.* This sleeping pattern is particularly found in one-room or few-room houses (5 percent). Each family member spreads out his own mat at night. In a bigger house, as many as four mats might be spread out.

(5) *Daughter sleeps in a separate room.* In line with values on maiden chastity, growing daughters are given more protection from some possible "no-good" men. This is manifested in the room and bed space assignment (7 percent). If a house has a "silid" (a small room), this is given to the teen-age daughter. Before a would-be-lover gets to her at night, he will have to pass over the sleeping father or brothers in the living room.

(6) *One-room per family.* In cases where more than one family occupies the same house, a room is designated for each family (6 percent). This is supposed to help minimize quarrels among children. Parents and children of each family sleep together in one room.

(7) *One-room per person.* As expected very few of the families (1 percent) indicated having a room for each family member. They have bigger houses and are higher in the socio-economic scale in the village" (179).

The Filipino rural family is more of a homeowner than its urban counterpart but rate of lot ownership is not as encouraging even for the rural dweller. However, the situation for both home and lot ownership is bound to get worse rather than better in the future. The majority of village families live in small one- or two-room houses and literally sleep together.

Household composition and the family life cycle

One of the features of the Filipino household is that it changes in size and composition throughout the family's life cycle. Different stages in this cycle mean different income, consumption, expenditure, and labour force patterns for the household. Some stages are more strategic for certain development programs but not for others. The relevance and appeal, for example, of nutrition, family planning, labour-intensive technology, adult education, or youth programs to a particular household depend on its size, composition, and stage in the family life cycle.

Table 71 which presents nationwide data reveals that the proportion of extended households increased from 15% for the 34 years old and younger to 40% for the 65 and older. The older the members of the household are, the greater is the tendency for them to belong to extended rather than to nuclear households. The notion of a *development cycle* suggests that a nuclear family grows into an extended one; sometimes returns to nuclear, and then becomes extended again. The higher percentage of extended households for the older household heads occurs as a way of taking care of aging parents.

Pal looks at age structure of households in terms of the burden of child dependency. He considers the age group 35-44 as the peak of the burden and the age group 45-64 to have a decreasing dependency burden because the wives have ceased to bear children and the first two children are old enough to help their father on the farm or their mother at home. The age group 65 and older is expected to be through with their dependency burden (254, p. 25-26). The last two age groups referred to by Pal could be modified under certain circumstances by the marriage of the first two children who may leave home or stay with their parents for awhile. In either case, the help expected of them may not be forthcoming to the degree desired by the parents. As a matter of fact, they could be an increased burden. The 65 and older age group may be through with the dependency burden but they themselves might have to be dependent on someone else. This could be the case when the parents have had a high dependency burden during the earlier years of their life and have had no chance to save for their old age. Children and other relatives are expected to be the source of support during the twilight years.

Guerrero in her study of farm families (159) attempted to analyze the effect of stage in the family life cycle on decision-making but failed because of difficulty in delineating the stages. Unlike in the United States, where this concept has more meaning because of the distinctions between stages, the Filipino wife has a long child-bearing period (almost as long as her reproductive period). As illustrated in the study of 369

households in eight villages in Laguna, the age interval between the oldest and the youngest living child was below 10 years for 35% of the households; 10-15 years for another 35%; 16-20 years for 22%; and 21 or more for 8% (66). This long age interval between the oldest and the youngest child is due to the absence or minimal application of family planning and, therefore, the wife is exposed to the risks of pregnancy as long as she is biologically capable of reproduction. The result according to Guerrero is a family which is in a series of stages at any one point in the life cycle. For example, there are families with children of pre-school, grade school, high school, and college age. In some instances, the mother is having a new baby and expecting a grandchild at the same time (159). As one father described the age ranges of his children: "They were born pre-war, war-time, post-war and cold war." In the developed countries, couples not only plan and limit the number of children in the family but also time their arrival. Families could decide to have two or three children in succession and then stop. The lack of such sophistication in family planning, particularly among low-income low-educated rural families, results in overlapping stages in the family life cycle, and a changing size and composition of the household over a period of time. With these considerations in mind, the Filipino household may be pictured as follows:

Stage I. The Beginning Household (Nuclear or Extended)
(1) Newly-married couple (A and B) set up their own household; or
(2) A and B as newly-married couple live with either A or B's parents.

Stage II. Expansion of the Nuclear and/or Independence of the Dependent Household
(1) A and B's household expands with the coming of children; or
(2) A and B separate from the parents, set up their own household and start their own family.

Stage III. Expansion and Contraction (Nuclear or Extended)
Some of A and B's children start leaving the household owing to marriage, employment outside, etc.; but at the same time A and B could be having more children. The married children may stay in the same household of A and B for awhile.

Stage IV. Contraction (Nuclear)
A and B are left only with unmarried children.

Stage V. Contraction or Re-expansion (Nuclear or Extended)

(1) A and B live by themselves;
(2) A and B may join any of their children;
(3) A and B may be joined by any of their children;
(4) A and B may be joined by grandchildren or other relatives.

In any of these stages the nuclear household may temporarily become extended by the addition of relatives outside the nuclear family. The greatest degree of extendedness possible is for A and B as a newly married couple to continue living with their parents and for all other siblings of theirs to do the same even after marriage and birth of their own respective children. This arrangement rarely occurs among poor rural households. Poverty cannot sustain this arrangement and it is much more expedient to build makeshift simple homes as new families get started. Extended household arrangements are usually for a particular duration, not permanent for the lifetime of any one household.

To illustrate the dynamics of these arrangements, Table 75 shows the patterns of change which took place in 369 households over a 5-year period. Only 11% remained exactly the same in size and composition. Obviously, most households increased in size owing to the birth of more children. Increase in size was also due to relatives joining the household or to a combination of these two factors. Decrease in size was a result of children and/or relatives leaving the household for reasons of marriage, work elsewhere, etc. It is interesting that 5% of the households were back to the husband-wife (couple only) composition after all the children left. This phenomenon is more prevalent in Western developed societies where child-bearing takes place within a relatively short period and children leave the household at maturity whether or not they are married. More peculiar to a developing country like the Philippines is the occurrence of 8% of the households which are simultaneously in the *child-bearing - child leaving stage* which is a consequence of the wife's "natural" exposure to the risks of pregnancy throughout her reproductive years. The fact that changes were observed in 89% of the households over a period of 5 years shows the dynamic character of the Filipino household, not only with respect to size but also composition, although three-quarters of the households remain essentially nuclear in structure.

Attitudes toward extended family household arrangements

It may be assumed that in a so-called "familistic" society like the Philippines, physical "family togetherness" will be a favoured arrangement, for this either makes for or at least symbolizes family unity. Previous data presented have shown that the modal Filipino household pattern is nuclear, but it is important to determine whether this is the culturally preferred arrangement or whether households become extended more by default or social and economic necessity than by actual choice. When asked where they want their children to live after marriage, 86% of household heads from eight barrios in Laguna expressed a desire for married children to set up their own household instead of staying with their own parents (3%), or their in-laws (1%). A frequent explanation given by parents for this preference is to make the married couple aware of their new responsibilities and to give them a chance to live a life of their own.

When asked with whom they prefer to stay in their old age, parents expressed greater willingness to join their unmarried rather than their married children. Eighty percent preferred the former and only 22% chose the latter. Apparently, Filipino parents consider joining unmarried children less of an imposition, an easier and more uncomplicated adjustment than living with children who have families of their own. In essence, this preference is for a nuclear rather than an extended household even in their old age. But this is a matter of preference for the future rather than of actual choice when confronted with realities where alternatives may not be as clearcut or where alternatives may not exist at all. The reality of the situation is that 86% of these parents indicated that they do not have sufficient income or savings which they can use for old age. Therefore, they will naturally have to depend on somebody else. A restudy of these same parents 6 years later showed that more of them, 33%, as against the previous 19%, said they would be willing to live with their married children. Apparently, as old age draws near they realize the inevitable and are therefore inclined to accept this arrangement.

Data from other studies such as Covar's show that married children, both males and females, tend to reside independently of the family of orientation. Of 102 married children, 84% established their own households and only 16% still lived with their parents at the time of the study (100, p. 77-85). In Bustrillos' study in Quezon, 30% of the reported number of children were married and had established separate households of their own (54, p. 16-17). For further evidence on the cultural preference for independent household arrangements, findings from Guerrero's analysis are cited: (1) Of the 81 households she studied only five were extended by presence of married sons and daughters. (2) When couple respondents were asked where they stayed after marriage, 58% mentioned home of husband's parents; 25%, wife's parents; and 17% had their own house right away. Of those who stayed with parents, 64% did so temporarily; more than 50% stayed for 1 year or less; about one-third stayed from 1-4 years; and about 9% stayed for 5 or more years. (3) Reasons given by 52 couples for staying with their parents temporarily were: no house yet, 33%; parents need companions, 13%; they helped parents in the farm and the household, 25%; parents wanted it, 14%; and one couple waited for the moon to rise before moving to their own house. (4) When asked why they had eventually separated from their parents' home, 52% expressed a desire to be independent; 31% had their own house built. Both these reasons convey the desire to be on their own (159). Among the low-income Cebuano families studied by Liu and Yu, the majority of newly formed nuclear families started to break away from their parental homes about 13 months after the start of marital relations. About one-quarter of the couples stayed with parents for an average of 3-4 years (213).

From the urban perspective, the independent household preference is even more pronounced. In a pool conducted by the International Research Associates among a sample of 2000 adults divided among Manila, Bangkok, Singapore, Bombay, and Tokyo, "nowhere is the once-traditional concept of the extended family, where two or more generations share a single roof, endorsed. The five cities agreed that newlyweds should live apart. In Bangkok, 57 percent believe that newlyweds should live by themselves as against 40 percent who think they should live with their families. In Tokyo, 65 percent believe it best for newlyweds to live by themselves; in Bombay, 66 percent; in Singapore, 67 percent. In Manila, this opinion is held by an overwhelming vote of 97 percent. There are no significant differences in viewpoint as between men and women, except in Singapore where men are somewhat more insistent on marital privacy (71 percent) than women (63 percent). In Bangkok, there are differences in the views of the various socio-economic groups. The upper class favors privacy (71 percent); the middle class feels less strongly on this point (56 percent) while the lower class accept the necessity of living with relatives

(only 42 percent for privacy and 58 percent for living with relatives). Younger people are more strongly for marital privacy than older people" (21, p. 3-8).

From the evidence reviewed here, Filipinos in rural as well as in urban settings prefer the nuclear over the extended household arrangements. When the latter occurs, it is usually of a transitory nature.

The Filipino household compared with those of other countries

Social, cultural, and economic factors determine living arrangements for the newly married couple, the child-bearing - child-rearing family, the growing-up children, the middle-aged parents, and finally, the grandparents or aging parents. As development and modernization proceeds, changes in family household structure, as well as changes in other aspects of life, materialize. The usual expectation is for an increasing nuclearization of households as society becomes more urbanized. Although the classical description of the Oriental family household is that of a large multigenerational social unit, empirical evidence does not conform to the stereotype. This section summarizes the trends in family households as gleaned from available data in eight countries of East and Southeast Asia (Hongkong, South Korea, Taiwan, Singapore, Japan, Philippines, Thailand and Malaysia) and the United States (56, 66, 84, 136, 141, 195, 205, 279, 314, 334, 344, 345), from which we may view what our own households might look like in the future.

From the eight-country studies and some data from the United States, a number of trends can be identified:

(1) The American household is very clearly much smaller (3.14 in 1971 and 2.94 in 1975) than those in East and Southeast Asia, although Japan (3.7) is fast approaching the American-size household (Table 76). Another significant observation is the higher proportion of single-person households in the United States (18%); Hongkong (15%); Singapore (13%); Japan (11%); and Taiwan (9.5%) than in Thailand (about 2%); and the Philippines (1.4%). The latter has hardly any single-person households and reports the largest average household size of more than 6. This is followed by Taiwan, 5.8; Thailand, 5.7; Malaysia, 5.6; Singapore, 5.4; Korea, 5.2; Japan, 3.7; and U.S., 3.1. The large household of 10 or more persons is a rarity in the United States and Japan, and very minimal in Korea and Hongkong. On the other hand, this household size is still much in evidence in Malaysia, 12.3% of all households; Thailand, 11.6%; Philippines, 10.9%; Singapore, 10.5%; and Taiwan, 9.0%. Malaysia, Thailand, and the Philippines have a higher proportion of large households in the urban than in the rural sector - a trend which is the opposite of what we would expect and contrary to what is manifested in Taiwan, Korea, and Japan. The latter three countries exhibit the typical urbanization-modernization pattern of smaller households and, in fact, of increasing number of single-person households as place of residence becomes more urbanized.

In Japan, the average household size remained constant (to about five) from 1920-55, but the proportion of large households of seven or more persons declined from 24% in 1920 to about 6% in 1970, and the one- to three-person households increased from 33.4 to 45.9%. South Korea, likewise, showed a downward trend in household size especially in urban areas. Singapore, however, reported an increase in household size from 4.78 in 1957 to 5.82 in 1966, but a decline to 5.35 in 1970, with the Malays exhibiting larger households than either the Chinese or the Indians and Pakistanis. In Malaysia, however, the Chinese have larger households than the Malays. It is interesting to note that, although Hongkong, Taiwan, Singapore, and Malaysia have all been recipients of Chinese immigrants from the Mainland, it is quite obvious that family household arrangements have been influenced by or have adjusted to the migration and the socioeconomic situations in their places of destination. The Chinese in Malaysia have larger households than the Chinese in Singapore and Taiwan and the Hongkong Chinese have the smallest households of all the Chinese in the four countries.

(2) The relatively high incidence of one-person households in Japan, the United States, Singapore, Hongkong, and Taiwan and the rarity of this phenomenon in Thailand and the Philippines deserves comment. Although urbanization appears to be a contributor to this trend, it fails to explain why urban Philippines has even much less of one-person households than the rural sector. In Singapore, the Indians and Pakistani migrants (37%) exhibit a great deal more of this pattern than the other ethnic groups (Chinese, 11.1%; Malays, 7.0%). It is likely that migrants came without their families, as might also be the case in Hongkong and Taiwan single-person households. But there are other possible cultural explanations for the rarity of single-person households in the Philippines. They do not relish being alone and they find it difficult to comprehend

why anyone would want to live by himself. To the Filipino, to have company is preferred to having privacy, a value which is held strongly by Westerners. In the Filipino language, for example, there is no specific word for "privacy." The closest to it is "to be alone" and to be alone is "to be lonely."

Because the USA is often used as a "reference country" for assessing changes taking place in the Philippines, the developments in the American household are of particular interest. It has been said that "Americans are undergoing fundamental and often traumatic changes in the way they live because fewer of them live together under the same roof." The 1975 U.S. Census Bureau report said that "nearly half of the nation's 71.1 million households are occupied by one or two persons. There has been a dramatic 29% increase in single-person households since 1970, when 10.9 million Americans lived alone. In 1975, 13.9 million persons lived by themselves. Two-person households rose from 18.3 million in 1970 to 21.8 million in 1975, a 19% increase. Current trends described in the report show that 51% of the 13.9 million persons who live alone are over 65, and that three-quarters of those persons or 5.3 million in the over-65 category are women. Forty-nine percent of the one-person households are occupied by men and women under 35.

The report said declining birth rates, increasing divorces and marital separations, and a rise in the number of women who have children without husbands have also helped to reduce the number of Americans who live together. The estimated average number of persons per household fell to 2.94 in 1975 from 3.33 in 1960."

Some Americans regard this as the "ugly side of small families but others think that in smaller households people are more apt to create an environment that better fits their living needs. It is considered as a "more human way" (35).

(3) In general, household size is a function of many factors such as mortality; migration; number of children born; nature and availability of housing; presence of other relatives; desire and/or obligation to share the household with relatives other than immediate family; cultural norms with respect to when children are considered old enough to be on their own; where they should live when they get married; and how parents and grandparents are to be taken care of in their old age. In Taiwan, splitting of households occurred as a result of redistribution of land under the land reform program. There is a tendency also for household size to change according to the stage in the family life cycle. A couple might start married life as a small independent household which expands as children come and contracts as children get married. Sometimes, a couple starts life in a large household and ends as a couple again in old age.

(4) The majority of households in East and Southeast Asia are nuclear, i.e. composed of husband, wife, and unmarried children. Contrary to the image of the large classical Chinese extended family, it is Thailand, and not the Chinese countries, which registered the highest proportion of nonnuclear or extended households (48%), Taiwan (34%) and Hongkong (31%), which means that relatives other than the nuclear family are part of the household (Table 77). Korea, Hongkong, Japan, Singapore, and Taiwan fit the theory that nuclearization of the family accompanies increasing urbanization. The Philippines, however, does not follow this trend because the proportion of nuclear households in the rural areas is higher than in the urban areas. Thailand and Malaysia show the same tendency but the rural-urban difference in the two latter countries is very slight. As previously mentioned, in the Philippines, one of the explanations for the predominance of nuclear rather than extended households is the relative ease with which a house can be built with light materials because there is no real cold weather to contend with. Young, newly married couples can, therefore, set up their own households separate from their parents and maintain some independence.

Although the majority of households in East and Southeast Asia are nuclear, at one point or another in their life most of them have lived in an extended family for brief periods. Perhaps in the USA and other Western developed countries, there are many individuals who go through the entire family life cycle without living in an extended household. In Thailand, which has the highest proportion of nuclear households, newly married couples start marriage in an extended family context living with parents of bride or groom. At ages 20-24, about 50% of the households are extended. Then they move into their own households, thus forming a nuclear family. But later, their children get married and join them for a temporary period. The family is once again transformed into an extended family. Households, by and large, in most of the countries studied go through a cyclical pattern from nuclear to extended to nuclear, or from extended to nuclear to extended, during the developmental cycle of family formation.

(5) Besides the fact that there are more nuclear than extended households in East and Southeast Asia, the majority of the "extensions", if any, are vertical rather than lateral. The "extensions" are more likely to be parents, married children, grandparents, or grandchildren of the household head rather than brothers or sisters of husband or wife. Joint family households are not very common even among Chinese families.

(6) Besides being larger than nuclear households, extended ones tend to be better-off in terms of family income, education, have more members in the productive age group, and have more of them employed in white-collar and professional jobs. In Singapore, public housing flats have the highest proportion of nuclear families. Bungalows and semi-attached houses have more extended households. In the Philippines, nuclear households have younger members, smaller houses, and the dependency burden is higher than for extended households. Even holding locale constant, Phillipine extended households have higher socioeconomic status than nuclear households. Apparently, the better-off families are the ones able to support extended households. In Taiwan, however, the trend is the opposite. Migrant couples and those with higher socioeconomic status and modern employment tend to live more in nuclear than in extended households.

(7) Three issues emerge which are directly relevant to the continuing survival or demise of the extended family household: (a) Whether newly-married couples should live separately or with either of the couple's parents. (b) How aged parents and grandparents should be taken care of. Should they live with their children or should their children or grandchildren live with them? Should they live by themselves? Or should they be institutionally committed to asceptic Old Folks' homes? (c) Since households are essentially nuclear, how are vertical and bilateral family ties maintained? Is the extended family going out of style?

Available data indicate that, although the obligation of children to take care of and support their parents is still very much recognized, there is a declining proportion of parents living with their children. If parents have a choice, they prefer to live with unmarried rather than married children. The younger generation, on the other hand, prefer to choose their own mates and to live independently after marriage. One wonders how long children in East and Southeast Asia will continue to support parents in their old age and willingly or obligingly accommodate them in their households rather than put them in institutions. Japan, for example, already shows signs of Western developed societies' family adjustment to the forces of modernization both in size and structure. The Philippines and Thailand are trying to make the best of both worlds by having a family system which is residentially nuclear but functionally extended. The nuclear household satisfies the desire for independent living but many functions are pursued and maintained among relatives across households. The viability and durability of this "happy compromise" remains to be tested by time and crises.

Household composition and patterns of assistance to relatives

The nuclearity of the Filipino household is not really very odd in a society described as highly familistic. An examination of Table 78 suggests that the nuclear household is not free from the reciprocal obligations of extended family norms even if it is residentially separate. In other words, the rural household is residentially nuclear but functionally extended. Sixty-three percent of the households in eight villages are nuclear but they exhibit patterns of assistance to and from relatives outside the household. It is rather rare (1%) to find nuclear households which do not operate in this manner even when their relatives live in the same village. But perhaps more significant than these relatively "detached" nuclear households is the number of families (23%) who are both nuclear and do not have relatives residing in the same village. These "isolated nuclear families" may be interpreted as an indication of farmers' willingness to strike out on their own, breaking away from the circle of relatives at least geographically.

If one were to regard the patterns of assistance and household arrangements as depicted in Table 78 to be a spectrum from top to bottom, there is a range from "isolated nuclear family" which lives away from relatives to the most extended type which exhibits extra family household family assistance in addition to sharing of residence with non-nuclear relatives. The majority of the households, however, are nuclear in composition but extended in actual daily operations (63%). Extra-household family assistance takes place across both lineal and collateral relatives and encompasses cousins - an indication that exchanges among extended family members stretch beyond the parent-child and sibling relations. Uncles, aunts, nephews, nieces, and cousins are very much part of the reciprocal assistance patterns. Hence, one can readily conclude that the extended family

serves not only as the basis for social interaction at the village level but also serves social insurance functions for the family members. The different types of assistance exchanged included: help in farm work; food given free; cash loans; money given free; rice given free; help in household chores; assistance in times of emergency; assistance in cases of family illnesses; helping in sending children to school; rice loans; all kinds of unspecified assistance; and some indicated that help is rendered back and forth in almost all matters "just as if we were living in the same household."

Similar patterns of assistance to parents and relatives were revealed in Guerrero's study in Batangas. Help in farm and household chores were mentioned by 42% of the respondents; giving rice, money, and vegetables, 26%; caring for them in their illness and helping pay medical expenses, 6%; giving help to brothers and sisters in school, 3%; and sharing home with parents, 5%. When asked what types of assistance they received from parents and relatives, parental help for the construction of the couple's house was mentioned by 24%; help in expenses for child's baptism, 14%; help in caring for children and in sending them to school, 8%; allowing couple to keep harvest from parents' field and allowing them to stay in parental home, 5%; and help during emergencies, 4%. What is significant is that 33% of the couples interviewed said they have not received any help at all from parents and about 19% reported not having helped their parents and relatives at all. As one respondent remarked: "It is no longer the practice here to be always depending on others. We are generally independent in this barrio." But among those involved in giving and receiving, lending and borrowing, particularly money, 72% of the husbands and 62% of the wives indicated that family obligation was their primary consideration for lending money to parents and relatives. They felt that it was their obligation to extend assistance whenever it was needed. In some cases, they could not refuse the help asked of them. Still others were motivated by the expectation that whatever help they gave would be reciprocated in the future. In certain cases, the couples were repaying parental aid which was given to them during the early years of marriage. In matters of giving or lending money to parents or relatives, it was predominantly a joint decision by husband and wife and the reason for this pattern was the desire for marital harmony. It was felt that both of them need to know where the money goes. But some couples said the decision depends upon whose relatives are involved. One wife explained that it is easier to turn down her own relatives but not her husband's. The matter of borrowing money from parents and relatives is again a joint decision as reported by two-thirds of the couples. The reason mentioned for the joint decision-making was related to the fact that together they had more "courage" to approach their parents or relatives. Furthermore, indebtedness is something that could not be hidden from the other partner and it is their joint responsibility to make the payments (159).

The 1973 National Demographic Survey results reveal that, in the course of day-to-day living, there are very few households which are able to get along without helping others and being helped in return. Sixty-five percent of married women said that they have helped friends, neighbours and relatives, but only 51% admitted that they have ever asked for help. For the help that they have given, 52% said they have received something in return; for the help they have requested, 67% said they have paid for it. Assistance in cash or kind is the most common type of help given and it is also the most frequent type of help requested. A service, such as marketing and baby-sitting, is the other type of help given and requested. Although there is evidence of reciprocation, more of them said they have given rather than have asked for help. Metropolitan Manila wives appear to be the most independent of all. They have the highest proportion who said that they have not received anything for the help they have given; the highest proportion who said they have never asked for help and whatever assistance they have rendered or requested was predominantly in cash or kind. In general, there are also more rural than urban wives who have received something for assistance given and have paid for help. They also have a greater tendency than the urban wives to ask for help. These patterns of assistance are part of the social mechanisms for coping with the demands of day-to-day chores and necessities which families have to live with, but *bayanihan* or the working together in mutual help is practically nonexistent. The exchange seems to be more contractual now (77).

From the results of these studies, it is inaccurate to describe the Filipino family as if it were a system whereby a parasite (a less fortunate member) feeds on a host (a better-off relative) without contributing anything in return. Oppenfeld interpreted the inhibitory role of the extended family as follows: "Filipino family ties put pressure on an individual to help relatives who have less than he has." Because of this, he says that "any sort of excess is soon transferred to a needy relative." The family, therefore,

provides a built-in social security for members of the kinship group and Oppenfeld believes that this concept of sharing has been a deterrent to maximizing farm incomes and that this explains why many farm operators work hard until they reach a certain minimum income, and beyond that, the opportunity to earn more is no longer a strong motivating factor (339). If this were the case, increases in productivity would not have taken place because farmers would have been reluctant to increase yields lest relatives descend on them. In Peter de Vries' rice village study (109), family relationship was the most significant consideration in the farmer's decision as to who gets hired to work on the farm, particularly in harvesting when the relatives are paid in kind as their share of the harvest. Not only the farmer, but also the hired farm worker, has a vested interest in larger harvests because both of them benefit from productivity increases. However, with declining access to farmland, one wonders how much sharing even within the family can continue to take place among farmers and from farmer to landless.

It is shown, from the analysis of family assistance patterns, that there are norms that govern these relationships. It is considered desirable to be able to help needy relatives but, at the same time, potential recipients of assistance try to minimize imposing on one's family. Whatever assistance takes place most often occurs on a reciprocal basis, perhaps not immediately but in anticipation of future possibilities. Under the Philippine family system, there are social sanctions applied to "parasitism." Life can be very uncomfortable for a "parasite." From Guthrie's analysis of traditional and modern attitudes of village people, there are indications that they expect less emphasis on obligations to family members and that prosperous people will be less willing to give financial aid to relatives. Furthermore, the individual seems to be more willing to consider other criteria than family relations in making decisions about hiring people and investing money. They also believe that a man should help all people regardless of whether or not they are relatives. However, the respondents have overwhelmingly agreed that a family should be responsible for keeping its members out of trouble and that children should follow parents' advice and preserve family ways (161). A 1973 nationwide survey of 254 341 establishments has confirmed the growing rationale in hiring employees especially in the manufacturing and service serctors, and has revealed that blood relationship or *consanguinity* is regarded by these establishments as the *least important* of six considerations in the recruitment process which are ranked in the following order: work experience, educational attainment, age, sex, civil status, and lastly blood relationship (244).

The relative value of relatives to a family is reflected in the priority given them in case of need. Table 79 contains information on how someone might respond to the need for assistance from different groups of people. First priority would be given to sons and daughters, followed by relatives in the same barrio; then closer relatives in other barrios; neighbours but not relatives nor close friends; friends but not neighbours; barriomates but not neighbours and, finally, townmates. Propinquity is an important consideration even among relatives. Those who live nearby have priority over those who live elsewhere.

From all this evidence we can infer that the family remains a significant influence on Filipinos' behaviour, especially in the rural areas, but there are indications that the demands of a modernizing society and its more universal norms are also making some headway, particularly in the nonagricultural and more urbanized sector.

Family obligations and entrepreneurial behaviour

Behavioural scientists have all too frequently viewed extended family relations as an inhibitor to change because "traditional reciprocal obligations and expectations that bind kin - often discourage progressive innovation by individuals who are faced with the dilemma of continuing to divide their increased income in the fashion expected or of risking censure and sanctions for failure to do so..."(140, p. 285). As Szanton describes it: "The Philippine kinship system gives greater prominence to relatives whom Americans consider distant. A Filipino's efforts and savings are hence likely to be "drained off" to the benefit of these 'distant' relatives rather than devoted to economic and technological investments"(315). Another illustration of Western scholars' views regarding the negative effects of the extended family on the aspirations and achievement of individuals in the developing countries is quoted from V. M. McKendry et al.:

"For example, it appears irrational for a man to fail to accept a raise in salary for doing good work. In the United States, this is certainly the general case. In developing countries, however, circumstances might make this type of behavior, either

objectively or subjectively, rational. First, an extended family system exists with the concomitant belief that the more prosperous take care of the less prosperous. Therefore, it is very possible that once X's relatives find out about his raise, he might have to support three or four more people in addition to the ones he is already helping. Or, some might move into his house. The net effect of the relative's action could yield a decrease in real income to X of sufficient magnitude that the most intelligent thing to do is to refuse the raise. What is more common, however, is that a culturally acceptable characteristic develops to circumvent the problem, e.g. whereby the outer trappings of wealth such as spacious, well-kept lawns, are avoided thereby making it difficult to tell how well cousin X is doing financially.

A second reason for secrecy, which seems foolish to westerners is that most traditional societies have a concept of limited good. This states in effect that life is a stochastic zero sum game guided by chance, i.e., that there is a fixed amount of wealth and that one's share of it is a matter of luck. Therefore, if X gets more, he is likely to feel that this means someone else gets less. Such belief may produce an "approach-avoidance" situation which leads to guilt feelings in a person in a transitional society as he strives to get ahead. Also, there is the common folk belief that in order for luck to continue, good fortune must be shared - which puts him in the dilemma discussed above" (230, p. 6-7).

One wonders how many Filipinos would in fact refuse salary increases because, in so doing, they might have to take care of less fortunate relatives. Would it be considered intelligent to refuse that salary raise? Perhaps those who put a high value on extended family relations would want to multiply their earnings so that, even if a part of it is shared, they would still have more than enough to keep for themselves. One can also wish that there were more prosperous Filipinos who subscribed to the so-called common folk belief that in order "for luck to continue, good fortune must be shared," for if they did, there would be a well-developed welfare consciousness and a social conscience which would involve "sharing one's good fortune" with others. Of course, in many highly developed societies such as the United States, sharing one's good fortune is not just a common folk belief, but is a law, which provides for a graduated income tax structure that forces the big earners to pay proportionately more taxes which are eventually used by the government for welfare purposes to take care of the less fortunate. It is a modern way of "sharing" one's good fortune. As a matter of fact, failure to share is subject to penalty.

What is of great importance to development, but which is often overlooked, is the supportive role of the extended family in the individual's efforts to achieve both for himself and for his family's upward social mobility. It is not unusual for siblings to take turns helping each other through college so that everyone in the family may be better-off. With respect to entrepreneurial behaviour, Husain emphasizes that: "in a situation where pooling of resources on an impersonal basis does not often take place due to the absence of necessary economic institutions or the inadequacy of existing ones and lack of trust of outsiders, joint ownership of means of production serves an economic rationale. It helps in the maintenance or development of an optimal unit of production with all the attendant advantages including bearing of risks. Such an organization is, therefore, not inconsistent with the principle of maximization. The system of sharing of income is also likely to provide necessary incentive to the participants in this form of family organization although in a more imperfect way than in a modern capitalist, where sharing of income is directly linked with the extent of a person's interest or contribution to production" (177). It is not uncommon, however, to find the business-minded family member taking charge of the enterprise, although he may not be the most likely choice on the basis of extended family criteria. In other words, economic rationality is not necessarily absent in a family-owned enterprise. As a matter of fact, one would expect greater incentives under such circumstances because whatever profit is realized accrues to the family.

Some evidences on the noninhibitory effects of family obligations on entrepreneurial behaviour are provided by Victoria M. Arcega's study of 35 agricultural entrepreneurs (18). When asked: "If you were to expand and consequently grow financially do you think more relatives would expect assistance from you?" Twenty-three said "*Yes*" and 11 said "*No.*" They think the help expected will be in terms of money, employment, schooling, and business loan for investment. Those who said *No* indicated that people should work on their own, be self-sufficient, and not depend on somebody else. Half of the respondents were actually helping relatives outside the wife and dependent children by

giving money, employment, schooling, and technical advice. Among the 23 entrepreneurs who think more relatives would expect assistance from them, 18 said they would be willing to assist them without expectation of repayments; four would be willing to assist but think they should pay back obligations; and only one would prefer not to expand because of concomitant familial obligations. It is interesting to note that 33 out of 35 feel that they have an obligation to help less fortunate relatives. Reasons cited were social conscience, Christian ethics, and humanitarian reasons. One said he would help with the expectation of being helped in return.

To probe further into the possible influence of the family, another question was asked: "If you were to expand your business who would your preference be as partners or corporate owners, if qualifications-wise they are the same?" Half of them said family members and other relatives, and the other half said they would prefer nonfamily members. Reasons for preferring relatives were: loyalty and trust; blood ties; charity begins at home; and keep riches in the family. Reasons for preferring nonfamily members were very instrumental in nature such as: more business-like relationships; greater professionalism; and less emotionalism. When asked whom they consulted with on decisions made in the enterprise, a relative was mentioned only 8 times; the rest were experts and friends outside the establishment or subordinates and coequals in the establishment. But those who mentioned relatives consulted them for their knowledge of subject matter, for moral support as in the case of wife and parents, and because they felt the relative had the right to know because he was part of the enterprise. Finally, when asked if they would have gone ahead in the business if a member of the family had disapproved of the idea, 28 said *Yes*, 4 said *No*, and one said *Don't know*. Incidentally, in 15 out of 18 family corporations, the treasurers are female members of the family such as the wife, mother, mother-in-law, sister, or daughter. Apparently, the treasurer role of the women in the household is carried over to the family business.

Another illustration of the role of the family in economic entrepreneurship can be found in our Rural Banking system. As Vernon Ruttan describes it: "The history of efforts to build a cooperative credit system and a rural banking system in the Philippines is instructive. Both systems were established in the mid-1950s. By the early 1960s the cooperative system had exhausted its capital, the collection record had declined to less than 50 percent, and the system was rent by charges of political involvement and corruption. The rural banking system, in which the local banks were typically organized as family enterprises, has remained viable and has continued to expand at a carefully controlled rate. There have been only a few failures. A thorough analysis would probably rate its performance significantly better than that of the United States during the early years of country banking"(290). The rural banking system helped draw out savings from the moneyed families who were most probably the sources of credit in the community anyway. The female members of the family are taking an active role in the management of these banks, the first one of which was inaugurated in 1952. Over a 25-year period, the number grew to 780 with 54 branches located all over the country. Total assets of the rural banking system reached P2746.6 million as of 31 March, 1976, and accounted for around 4% of the total deposits of the banking system (266, p. 40). The establishment of these banks has led to greater use of institutional credit and has encouraged savings deposits which might otherwise have been kept in earthen jars. One could argue, however, that these family-organized enterprises probably contribute to a reinforcement of inequities in income distribution. Whether or not this has actually happened is another issue and is separate from the indictment that family obligations inhibit entrepreneurial behaviour.

The large family and the meaning of children

The Filipino family is a child-centred family, for what is a family without children? The question asked of every married man or woman is: "How many children do you have?" not "Do you have any children?" It is assumed that anyone who gets married wants to have children and the couple who does not have any is considered unfortunate (walang suerte) and is usually an object of pity (Kaawa-awa naman) because obviously there must be something "wrong" with a couple who does not have any children. Just as it is impossible for us to imagine why some Western couples deliberately choose to be childless, it is equally difficult for Westerners to understand why we have six children or more.

What do children mean to the Filipino family? In an attempt to find some answers to this question, case studies using participant observation were carried out in six rural communities (10, 15, 157, 179). The following observations were found common to the

families in these villages:

Childlessness is viewed as a lonely unfulfilled state and a home without children is likened to an empty cave. The height of happiness for husband and wife is for their union to be blessed with children. A union without a child is incomplete.

Children mean *joy and happiness*. Everybody loves a baby. Children make a home bright and gay. A home filled with the laughter of children provides a balm which wipes away life's cares and worries. To a father who comes home tired at the end of a working day, there is nothing more soothing than a child's welcome with kisses and embraces. Children are a constant source of entertainment and delight.

Children are gifts from God and what He has given, He provides for. Children are parents' most precious treasures which no amount of money can buy. "They are everything to us - joy, happiness, inspiration and most of all - the gift of God."

Children strengthen the bonds between husband and wife. When parents have a serious quarrel, it is the children who pave the way for their reconciliation and prevent the separation. It is likewise believed that parents remain faithful to each other for the sake of the children.

Children lighten the burden of household chores for the mother. As soon as they are big enough, they go to market, cook meals, wash dishes, fetch water, run errands, baby-sit, clean the house, wash clothes, tend animals, put away beddings, etc.

Children are sources of support for old age not only financially but physically and emotionally. Even when sons and daughters are married and have children of their own, there is some expectation of support in cash or kind. As some children expressed it: "We do not want our parents confined in institutions. We are here to help them in their old age. What are we children for if our parents could not depend on us in their old age?" Parents take pleasure in their children's care, love, and attention, and many children are proud of the affection and support they lavish on their parents.

Children's usefulness goes beyond the performance of daily chores for they contribute to the household purse as soon as they are able to earn a livelihood. In fact, it has been observed that the child who brings in the biggest financial or material assistance to the family is usually the most highly valued not only by the parents but also by the siblings' close kin and immediate neighbours.

Children serve as inspiration and motivation to their parents to strive harder and earn more so that all the best will be given to them - food, clothing, decent home, education, and other needs in life. Parents also regard their children as an inspiration for them to lead a moral life so that they can be a source of pride to their own children.

On the advantages of having few children, two points were stressed: (a) less expense and (b) better opportunity for education of all children. Some mothers admitted that fewer children means an easier life for them. Others suggested that they could pursue other interests if they were not so tied down to taking care of children year after year.

To better appreciate the special value which Filipinos place on the "large" family, comparative data from other countries were examined. Fawcett et al. observed that the pattern of results for the Philippines differed substantially from that of other countries (Korea, Taiwan, Japan, Thailand, and Hawaii). They found that "the perceived economic benefits from children are higher and are spread more evenly across socio-economic groups in the Philippines; large numbers of children are seen as less of an economic burden; there is more emphasis on emotional gratification from children; restrictions on parents are less important" (131).

Although the number of children they desire is lower than that which is typical in their community, it is notable that their desired number is still higher than that for other nationality groups (19). Filipinos also stand out in the sense that their definition of a small or a large family is larger than that of the other groups. To rural Filipinos, for example, the mean number of children in a small family is 3.7; whereas, the corresponding figures for Korea, Taiwan, Japan, Hawaii Filipino, and Thailand are 2.8, 2.5, 1.6, 2.9, and 3.0, respectively. The large family for rural Filipinos is 8.4; whereas, for the other countries, the mean number of children are: 5.6, 5.5, 3.9, 4.8, and 6.0.

Other findings from the F. Arnold et al. report (19) on the *value of children* include the following observations about Filipinos:

(1) Expectations of economic help from children are shown to be highest for rural respondents in all countries but economic expectations are highest among Filipino respondents. In general, they also showed the lowest perceived costs of children as well as the highest perceived benefits.

(2) There is a tendency for Filipinos to give unusually high ratings to most reasons for wanting another child and it appears that many motivations for children are truly stronger among Filipinos.

(3) All Filipino groups showed a high level of concern about economic benefits and security from children, but old age support rather than current economic contribution is the major concern. At least 70% of rural parents expect to rely at least partly on their children for financial support in old age.

Although the economic benefits from children have been underscored, one suspects that the large Filipino family does not calculate on the basis of conventional economics. If they behaved according to the usual estimates of costs and returns, the family would want to have only one child because, on a per capita computation, it would bring the highest income (225). Furthermore, as the family size increases, the incremental income contributed by each additional member decreases, so that a family of three has a per capita income of P943 but one with nine members has only P478. On the other hand, the per capita expenditure of the family declines as the family size increases. Larger families have higher incomes because they have more breadwinners. But, considering the decline in per capita income with the corresponding increase in family size, one would think that adding more children would be no longer advantageous. However, perhaps it is not per capita income but total family income which is important and, since expenditures per person go down with increase in family size, there seems to be some economy of scale achieved in larger families.

Within the family, resources are "ours" not "his" or "hers", and therefore, it is the totality - the addition and multiplication of these resources rather than the division among members - which counts. The family's expenditures can expand or contract depending upon what is available. As we always say: "Naka-karaos din" (We can get by anyway!) Furthermore, the concept of *children as investment and security* for the future is the most long-range view and involves a lot of present sacrifice and deferred gratification. The security here is not just a question of insuring that one or two children survive but insuring that there are one, two, or three "successful" and "good, thoughtful" children who will provide emotional, financial, and physical support in old age. It appears that it is not maximum income for the short-run, but maximum insurance that someone in the future will care.

As Alsaybar describes it:

"The principle underlying this concept of 'children-as-investments' is similar to gambling: the more stakes one has, the higher are his chances of winning. Hence, the more children one has, the better are his chances of having children who will materially succeed in life, and who will be grateful enough to share their material success with parents. Although this principle does not seem to work in all cases, yet it has, (and still does), worked relatively successfully among many families. And such successes are like an *open book* in the community: everyone knows that the families which have moved up the socio-economic ladder are those with all or some children who have faithfully provided economic support and sustenance to their families. An ideal child possesses all the positive character traits which society expects, e.g. politeness, kindness, generosity, etc. But all these traits are nothing unless he is the child who is aware of his economic obligations to his parents and performs them well when the time comes. The ideal child assumes a prime mission in life 'to accelerate the socio-economic level of his family.' The dream of every couple is to have even just one such child.

To illustrate the workings of the principle, the case of Ben de Jesus is cited. He is 28 years old and second of 10 children. The eldest daughter is a college graduate, who works as a clerk in the town hall; she is married and has 4 kids, hence is not able to help her parents financially. The third child is also a college graduate, married but jobless. The fourth child, a son, is also married and has a baby boy hence he, too, is of "zero economic value" to his parents. The rest are still in high school and elementary grades. Ben worked his way through college and has a regular job plus some sidelines. Summed up, he earns over a thousand pesos a month. Ben is the ideal "puhunan" (investment) as far as admiring parents in the community are concerned. Apart from giving his mother P200 pesos monthly, he helps his brothers and sisters with their needs such

as clothes, shoes, and school supplies. He bought the family a television set worth 2,500 pesos and more recently a stereo costing P1,000. He supplied half of the cost of building a fishpen. He is also supporting one of his brothers who is taking up radio electronics.

Ben has a girlfriend and is contemplating marriage soon. But according to neighborhood gossip, Ben reportedly expressed that he will not marry unless he has bought a refrigerator for his mother. And it was also rumored that his mother told him: 'Ben, please do not abandon us even when you are married. I do not know how we will survive without the P200 that you give me every month!' Ben is often cited as an example of what *suerte* (good luck) with children can bring to a family. As one mother declared 'You just need one good child like Ben to help improve the family. Do you see how much one *suerte* out of 10 children can do to help the family?'

Because employed children are expected to decrease their support when they get married and have families of their own, they are expected but not forced to help as much as they can before marriage. This is the reason why earning children are admonished not to marry right away after graduation - much more for girls, on whom parents lose claim upon marriage...

Old age is inevitable and parents anticipate it with some measure of concern for their future welfare and sustenance. There are no homes for the aged and children are expected to take good care of their parents during their sunset years. However, parents are aware, or not too sure, that not every child will be willing to take them into their homes and care for them when old age renders them virtually inutile. This anxiety is minimized when a couple has many children and the problem of future care and sustenance is greatest when a couple has only one child. As one informant puts it: 'It is much more difficult when there is only one child. Suppose he turns out to be bad, who else could the parents turn to?'

Indeed anxiety or concern over one's care and sustenance in old age is exploited by elders as an incentive or an argument for women to get married. 'Who will take care of you when you grow old?' is the question asked of spinsters and bachelors. Aling Epang is an aging spinster who has neither husband nor children to help her. Her story is known to the whole community and serves as an object lesson to everybody.

Still another reason for wanting many children is they are a great source of emotional and psychological strength and comfort especially during crises. It is felt that a bigger family is better able to cope with familial and individual problems, for the problem of one is the problem of all. When birth, marriage or death occurs, the presence of the family during such moments is a source of emotional strength and security which they would not exchange for a comprehensive insurance or memorial plan.

The unity and solidarity of a family is no better displayed during times when it is threatened by conflicts with non-members. There are times when sibling-sibling or parent-sibling conflicts (often arising from inheritance and property disputes) divide a family, but a threat from 'the outside' serves to patch up intra-familial oppositions so that the family presents a united front" (10).

Incidentally, it is not very unusual to find continuing parental support to children even when they already have families of their own. Hence, the assistance does not necessarily always flow in one direction even in the later stage of the family life cycle. This happens especially when one or two of the children have not been as "lucky" as the others and the parents have something to spare.

In speculating on how increasing family size affects household savings, Peek (260) enumerates three possible behavioral changes: (1) The family could increase its total work effort and enjoy a total income greater than before so that per capita savings and consumption are unaffected; (2) work effort could be kept constant but per capita savings change, as consumption patterns are maintained; (3) the family could change its work effort, per capita savings, and consumption. The increased family size could motivate either lower or higher family savings. If the family wants to maintain its past per capita consumption level, per capita savings will be reduced to maintain consumption level.

If some credence could be given to casual remarks addressed to parents who have one, two, or no children: "What is the point in working so hard? You have only one child or you have no child at all!", we would expect greater motivation to work hard, to produce or earn more, among those with larger families. There is some empirical corroboration from Boulier's analysis of children's influence on economic activity of

rural households. He found that "children in Laguna households do contribute non-negligible amounts of time to income-earning activities and of income to their families, that they play important roles in non-income home production and child care activities, and that their presence has a considerable effect on their parents' allocation of time. Children of all ages appear to stimulate fathers to work longer hours at the expense of leisure. Young children reduce mothers' time in income-earning activities and their leisure. Older male children substitute for mothers' work time and, to a lesser extent, child care and home production time; older female children are substitutes for mothers' home production time, and their presence raises the number of hours mothers spend in income-earning activities. Older children of both sexes appear to increase substantially mothers' leisure" (34).

It would appear from several sources that, in a large family, parents and children survive in a self-sustaining, mutually reinforcing system where each other's needs are taken care of both for the present and the future. As the family changes in size and structure and sheds some of its traditional functions, other institutional mechanisms have to be devised to take over these established functions. One hopes, however, that Old Folks' Homes and social security cheques without love and affection do not entirely replace the family.

Socialization within the family

If family members are to perform functions expected of them and are to internalize values supportive of family norms, the socialization process must contribute toward this end. Otherwise, how will children develop the "conviction" that they should take care of their parents in their old age and should feel "guilty" or ashamed if they do not? The participant observation studies among rural families conducted by Ilan et al. (179) describe part of the socialization measures employed by parents:

"Obedience is a highly prized trait and is emphasized in early childhood. Usually, this is coupled with respect for old age or older people. Hence, a disobedient child is also disrespectful. A child is trained to obey his parents, grandparents, older siblings and relatives, etc.... Disobedience could be tolerated only when a child is ill or too young to perform the task he is asked to do. Playing should not be a reason for disobeying parents' orders. It is observed that any form of negative or resistant behavior on the part of the child is interpreted as (matigas ang ulo) hardheadedness or stubbornness. Generally, also, a child who reasons out before doing what he is told to do, is not taken by parents positively. Moreover, if a child quietly does what he is told to do, he is rewarded with praises and referred to as "mabait and masunurin" (good and obedient).

Mothers expect their children to perform well, possibly better than they themselves have ever done. Most of them use non-material reinforcement in developing achievement-orientation in the child. If a child does well, he is praised and showed off to other people. On the other hand, if he does not do well, parents do not inhibit their ill-remarks about their bad performance. Even in the presence of other people, the child is scolded or even punished for his failure. It is obvious that parents want everyone to know that they do not approve and are ashamed of poor performance. They seem to dichotomize their children into "bright" and "dumb". If parents can afford, they usually allocate education funds for the "bright" child. The "dumb" child is assigned to household chores, if a girl; to the farm, if a boy. Because education is considered a very important commodity, a bright child, if given education, becomes an important economic investment. When parents show their partial treatment of children because of differences in intellectual abilities, sibling rivalry usually comes to the surface.

All the mothers observed believe in meting out physical punishment such as spanking, placing the child in a sack, stretching out the arms, etc. One mother mentioned stripping the child's clothes as an effective punishment. As reward for good behavior, money and praise were popular. Usually a child is promised a new set of clothes if he behaves very well."

Further support for these observations on socialization for obedience and achievement-orientation is evident from parental attitudes toward upbringing of children as revealed in Table 80. Studies in Laguna and La Union rural communities show that the majority of parents endorse notions such as: children's obligation to support parents in their old age; teaching children to think the way their parents think; and obedience to parents as the mark of a good son or daughter. For people concerned with the status of

women, it is encouraging that these same parents believe that girls should study as much as boys even though they may get married and stay at home. They are also not in favour of parents having a say on whom their children should marry. What is intriguing is that, although they have negative attitudes toward children thinking independently from their parents, they are willing to have youths express their opinions freely, even if these contradict the beliefs of elders in the village, because they may have good ideas. In other words, within the family, following parents is the approved behaviour for youths, but outside the family it is permissible to express independent and even contradictory opinions to elders. This duality in prescribed norms probably offsets some of the inhibitory effects on "outside behaviour" which submissiveness and obedience at home create in the child.

Helping on the farm is an obligation expected of children. Although farm labour is an economically productive activity, the children who are engaged in this work for their parents are seldom, if ever, paid for their services. As Table 81 shows, the majority of farmers interviewed in a study in Bukidnon said that children who share in family farm work should not be paid wages because they are family members but they should be given spending money. Again, this norm of children as unpaid family labour appears to be well-established and, therefore, part of the socialization process. On the other hand, more than 80% of respondents think that a farmer should discuss important farm matters with his children and his wife.

Task allocation and task performance in the household

In the business of everyday living, members of the household are given tasks to perform in order to get things done. Bustrillos' study of Food Management Practices (54) gives us a clue as to how these jobs are allocated in rural households. Her findings suggest sex and age patterns for doing chores. Mother is responsible mainly for deciding what and how much to cook. More than one-third of them do the marketing; in the remaining households, father and children share the responsibility. Serving the table and washing the dishes are done mostly by the children. They also help in the cooking. An analysis of the household activities reveals that boys 3 to 6 years and 7 to 10 years fetch water, gather fuel, and run errands. From 7 to 10 years and 11 to 14 years, setting the table and cooking are included and running errands is eliminated. At 15 to 18 years and above, setting tables and washing dishes cease to be boys' work, but help in farming, fishing, and chores outside the home increase. Among female children, setting tables and washing dishes start as early as 3 to 6 years. Cooking is included at 7 to 10 years and continues to be a girl's responsibility up to the age of 18, when marketing is an added responsibility.

When asked who gave responsibilities to the children, 30% of the respondents mentioned father and mother; 27% mentioned mother; and the same number indicated that the children themselves made the choice. The manner in which responsibilities were allocated to the children was mostly by orders without consultation (54%). About one-fifth of the homemakers interviewed said the children did the jobs voluntarily. Another one-fifth said responsibilities were assigned on the basis of ability and age. It is obvious that differentiation of functions according to sex starts very early in the sense that certain chores are assigned more to girls than to boys. Father and mother jointly assume responsibility for making these assignments, but the mother assigns many of these herself without the father participating.

As in other families, opportunity for social interaction among rural family members occurs during mealtime. Seventy percent of these families ate their meals together. Eleven percent did not eat together regularly and 18% did so only sometimes because work and other activities conflicted with meal hours. In more than three-quarters of the households, children never participated in the conversation during mealtime. Parents' reasons for not allowing children to participate were their feelings that it was improper, impolite, and unsuitable for children to take part in adult talk. Among the households where conversation took place during meals, the topics discussed ranged from children's behaviour, plans of the family, father's job, family problems, local news, world news, to wife's problems at home. In 17% of the households where children were allowed to participate in the conversation, parents thought they should be given an opportunity to express themselves, especially when the topics were suitable for children. Others felt their children were already grown up, were sensible, and were being taught how to deal with other people.

A 1976 study by Jayme-Ho indicates that the sexual division of labour in carrying out household tasks is not as rigid as we often assume it to be. For example, in Table 82, it is shown that husbands participate in feeding and caring for young children; they do cooking and food preparation, laundry, housecleaning and marketing, as well as livestock and poultry feeding, gardening, fetching water and firewood. Sons and daughters also seem to be involved in the same activities which in the past were more specifically defined as male or female roles. A 1976 national survey done by the Philippine Social Science Council (PSSC) on The Status and Roles of Women in the Philippines corroborates these findings. Married women said that their husbands help with cooking, looking after the children, cleaning the house, washing the dishes, and washing clothes. Perhaps it is the availability and the ability to do the work rather than sex that determines who will do it; or if one were to take the economist's view, time and task allocation in the household is made in such a way as to maximize the utilization of human resources at its disposal for maximum productivity to meet the family's needs not only for its livelihood but also for its own general welfare.

Boulier (34) illustrates the time allocation and income contribution of members from rural households using three general categories of activities involving time utilization:

(1) *Income earning time* which includes hours spent in crop production, fishing, poultry and livestock, wage employment, business, practice of profession, and *income-producing home production* such as home gardening, washing and ironing for sale, furniture-making and handicrafts, food preservation for sale, woven crafts, and others.

(2) *Nonincome home production time* which includes marketing of food, washing dishes, cleaning backyard, cleaning house, cooking and preparing food, other feeding time, washing and ironing clothes, getting water and firewood, and mending, sewing or repairing children's clothes.

(3) *Child care time* is time devoted to feeding, bathing, dressing, cuddling, and watching infants (0-2 year olds) and other pre-school children.

From the results of Boulier's in-depth analysis (Table 83), the following observations are made:

Farm families spent 7 hours more than nonfarm families in total hours per week for these three categories of activities. Although mothers as "housekeepers" are not regarded as members of the labour force, for both farm and nonfarm families, they spent more total hours per week "working". Farm wives spent a total of 66 hours and fathers only 55. For nonfarm families, the corresponding figures are 71 and 49 hours per week, respectively. Consistent with the breadwinner role, about 70% of family income was earned by the father; 14% by the mother; and 15% by the children. As a proportion of total income, farm wives contributed more to it (17%) than nonfarm wives (11%). Children in farm families also contributed slightly more to family income than nonfarm children, not in absolute terms but as a percentage of the total. Again, as expected, mothers spent the most time on nonincome home production, 70%; followed by children, 25%; and fathers, about 5%. Non-farm mothers spent slightly more hours on nonincome home production and child care. Children's contribution to these two latter household activities is about 25%, and hence is not insignificant. Children taking care of other children or taking care of themselves was likewise reported by working mothers who were interviewed in the 1976 PSSC study. We can begin to recognize that, although children are a dependency burden, beyond a certain age level (and usually very early as mentioned previously) they are literally harnessed to take care of other children and to perform needed chores. At the household level, therefore, the dependency burden easily becomes a useful resource.

Patterns of decision-making

Considering the fact that Filipino wives have housekeeping as a main activity, to what extent are they "managers" of the household or are they simply "implementors" of their husband's wishes? Several studies both past and recent give us the answers.

Guerrero in her study of decision-making among farm families (159) found that decisions in the family were made independently in some cases and jointly in others. Joint husband-wife decisions were reported for buying land, borrowing money, and deciding what to plant. The purchase of farm tools was an independent decision for the husband, as was buying household furniture for the wife. Renting land was more of a joint decision than an independent one, but how large an area to plant to certain crops

was more independent than joint. Although there was no area of decision-making on the farm where the wife made independent decisions, she was involved in many farm-related ones. Further evidence of this involvement was revealed in another study of rice farmers when asked whether or not they consulted their wife regarding the practices they used on the farm. Findings show that at least 86% of all the farmers interviewed consulted their wife in matters pertinent to farm business. She is mostly concerned with the allocation of money or other resources, but when it comes to operational decisions on the farm the farmer makes them himself (117).

In an answer to a question on who makes decisions on adopting new practices, Feliciano (133) found that about 50% of 377 respondents from four regions of the country said that the husband alone makes the decision and the other half indicated the wife's involvement in decision-making but in varying degrees such as: husband in consultation with his wife; husband and wife jointly; husband and wife in consultation with the children; and wife in consultation with the husband. In general, although the wife is never the sole decision-maker in farm-related matters, she is consulted and exerts influence, especially when additional expense is involved in adopting a new farm practice. This is understandable because the wife is the family treasurer in the Philippines. In interviews with farmers in eight barrios, 91% indicated that the wife holds the family purse and only 3% said that it is the husband who performs this function. When asked about: "Who *should* hold the family money?", the percentage of respondents assigning this function to the wife increased from 91 to 93% (62). The PSSC National Survey showed exactly the same findings with respect to the wife as the established keeper of the family money.

Again, in the Guerrero study, deciding to save and how much to save is more of the wife's independent decision. Furthermore, setting a limit of debts incurred by the family is another important role played by the wife. Matters pertaining to children, such as assignment of particular chores, discipline, whether or not to send them to high school or college, and choice of baptismal sponsors, are decided jointly by husband and wife. It is also evident that, with longer marriage, the number of joint decisions increases considerably. One of the reasons expressed for this jointness lies in the prevalent norm that husband and wife should consult each other on matters affecting the family. The respondents also mention marital harmony as another reason for mutual consultation.

Compared with other Asian women, Filipino wives seem to have an edge over them in the management of family finances. A 1965 public opinion poll (185) which asked the question: "Who do you think should keep the pay envelope and manage the family finances - the wife or the husband?" revealed striking differences in the viewpoints of various Asian groups on this important domestic issue. In Manila, public opinion overwhelmingly endorsed women's holding the purse strings, this view being held by 95% (92% of men and 99% of women). In Tokyo, this view was also strongly held by 79% (76% of men and 82% of women). In Bangkok, the vote for women's management of finances was 66% (59% of men and 78% of women). In Bombay, the view was held by 50% (44% of men and 58% of women). Singapore had the lowest vote for women's management of family finances, only 46% (35% of men and 58% of women). Although the men in all five Asian cities were less inclined than the women to have the wife handle the family money, the fact that 92% of Filipino male respondents endorsed the practice testifies to the strength of this view.

Additional evidence on the wife's participation in decisions involving farm and home matters is presented in Tables 84-87. The following observations are made from these data: (1) As revealed in previously cited studies, the wife is consulted by the husband in farm business matters although she is not by any means the sole and independent decision-maker in this respect. (2) Decisions involving the household are mainly the wife's domain. Matters pertaining to children tend to be decided jointly. Taking all decision areas into account, however, the most predominant decision-making pattern is that done jointly by husband and wife. (3) The Bukidnon study shows that wives (who tend to listen to the radio more than husbands as found in the preceding section) also pass on farm information from the radio to their husbands.

Table 88, which provides data from both urban and rural respondents from different parts of the country, shows roughly similar findings. Although the discipline of children is more of a joint than a wife-only or a husband-only decision, the male children tend to be disciplined more by the father, and the female children more by the mother.

Although family expenses are decided mostly by the wife, more husbands than wives decide on family investments and business matters independently. Nevertheless, a higher proportion of households indicate that even financial investments are more joint rather than independent decisions.

Additional evidence along this line, which has important implications for agricultural as well as for consumption credit programs, is Contado's finding that the majority of decisions regarding production loans (how much, from whom, and when to repay the loan) are made more jointly and by wife alone than by husband alone. The wife also exercises more influence than the husband in deciding when to repay the loan. In borrowing for consumption, the wife is a more important decision-maker than the husband because more wives than husbands make this decision alone. It is less of a joint decision than are production loans. The lending of money is more of a joint than a wife-only decision but more wives than husbands make this decision by themselves (95).

That most wives are not just housekeepers and joint decision-makers but are also companions to their husbands, even outside the home, is suggested in the Institute of Philippine Culture study:

"Of the 3,015 respondents who are currently married and living with their spouses, 69 percent say that they join them, at least occasionally, in certain activities outside the home. Of the 2,875 married respondents who have at least one child, 60 percent state that they go places or do things outside the home with their spouses and children. For the most part, these shared activities are *recreational* in nature. About 44 percent of first-mentioned replies - whether about spouses or spouses with children - fall into this general category. Thus 40 percent of respondents speak of going to the movies with their spouses or families, going to plays or concerts, or on picnics or outings or just going for a stroll together. Another 3-4 percent mention trips and vacations. Somewhere between the recreational and *social* are special occasions such as weddings, baptisms, parties and fiestas (20-21 percent). More clearly social perhaps are visits to neighbors or relatives (2 percent for spouses, 5 percent for families), and attending school, political or civic functions (2-3 percent). Going to mass and other services is mentioned by 15 percent as a husband-wife activity and by 20 percent as a family occasion. Economic concerns, domestic or occupational, are mentioned by 15 percent of respondents for their spouses and 8 percent for their spouses and children."

SUMMARY AND CONCLUSIONS

The family is the mirror of Philippine society and it is the "small world" of the Filipino. Its influence pervades every aspect of his life and so, unless we have an appreciation for the family and household in which he lives, it is difficult to comprehend why he behaves the way he does. This chapter describes what we know and have learned from research with respect to concepts of family, kinship, and household; structure, size, and composition of household; housing and home arrangements; household composition and the family life cycle; Filipino household compared with those of other countries; patterns of assistance to relatives; family obligations and entrepreneurial behaviour; the meaning of children; socialization within the family; task allocation; and patterns of decision-making.

Concepts of family, kinship, and household

What is important in the concept of kinship is the sets of relationships established among persons linked by birth or marriage. In the Philippines, there is a bilateral kinship system whereby relations are recognized from both the father's and the mother's side. The Filipino's definition of *family* includes the family of orientation and the family of procreation both of which extend bilaterally. Because the family is so encompassing, the household is actually the operational unit within which family relationships can be observed. A household which refers to "a group of persons living together and sharing the same housekeeping, kitchen and eating arrangements" is a meaningful social unit because it is the arena in which the family's day-to-day living takes place. Using the household as a frame of reference, a *nuclear* family is one which contains father, mother, and unmarried children, whether natural or adopted. A household

which includes relatives other than husband, wife, and unmarried children is considered *an extended family* household. A household may be residentially nuclear but functionally extended because of the many other elements of the extended family that may be present even if the household is residentially nuclear. However, the absolute essentials for the extended family seem to be: recognition of kin relations beyond that of husband, wife, and unmarried children; shared responsibilities; and maintenance of expressive and emotional relations beyond the nuclear family. Theoretically, as we move from traditional to modern society, the ideal features of the extended family are supposed to become less and less binding to members.

Structure, size, and composition of household

In general, the majority of Filipino households are nuclear and those which are extended are only minimally so. Large household size is due mainly to many children and not to the presence of other relatives. Contrary to what one would expect, the trend is toward more extended family households in the urban than in the rural areas. The higher the income, education, and occupational level of the household, the higher is the percentage of extended households. This suggests that affluence and better socioeconomic status are supportive rather than destructive to the survival of the extended family. It has also been observed that more of the older than the younger household heads live in extended households, which indicates that aging parents and grandparents are taken care of in this manner. The average Filipino household has more than six members, about three males and three females, with the urban slightly larger than the rural. This means that, besides the husband and wife, there is one young adult, two school-age children, and one pre-schooler or toddler. The six-member household is not the complete family because about two members have already left the household to establish their own. This means that, despite many children, the actual labour force available to the rural household is roughly two persons and part of the wife's time. Although the one-person household is a rarity, there is some evidence that living alone is beginning to happen among the aged, particularly the older women.

Housing and living arrangements

The rate of home ownership is higher in the rural than in the urban sector because of the ease with which makeshift houses can be built in the villages. But there is a declining rate of urban home ownership from 1961-71 with Metro Manila family-owned houses. The situation with respect to homelot ownership is discouraging because even in land-rich Mindanao the proportion who do not own homelots is quite high. An interesting finding relevant to home-ownership is the curvilinear relationship between income levels and the proportion of families who own house and lot, with the lowest and highest income levels reporting the highest proportions of ownership. From the detailed descriptions of house structure and living arrangements, the rural family literally lives close together and privacy is virtually unknown.

Household composition and the family life cycle

The notion of a development cycle suggests that a nuclear family grows into an extended one, sometimes returns to nuclear, and then becomes extended again. In the Philippines, it is difficult to delineate distinct stages in the family life cycle because the Filipino wife has a long child-bearing period because family planning has yet to become a way of life for her. There are households which are simultaneously in the child-bearing and child-leaving stages. Families can have children of pre-school, grade school, high school, and college age. In some instances, a mother can be expecting a baby and a grandchild at the same time. The household expands, contracts, and sometimes reexpands again. It is dynamic not only with respect to size but also in composition, although most households remain essentially nuclear. Extended household arrangements are usually for a particular duration and not permanent for the lifetime of any one household.

Although the Philippines is a very familistic society, Filipinos in rural as well as urban settings prefer the nuclear over the extended household arrangements whether for newly married couples or for aging parents. Frequently, however, the latter have no choice because they do not have sufficient means to support themselves in an independent household.

The Filipino household compared with those of other countries

Comparing data from eight countries of East and Southeast Asia (Hongkong, South Korea, Taiwan, Singapore, Japan, Philippines, Thailand, and Malaysia) and the United States a number of trends can be identified:

(1) The American household is clearly much smaller than all the others, but Japan is fast approaching the American size.

(2) There is a higher proportion of single-person households in the USA, Hongkong, Singapore, Japan, and Taiwan (in that order) than in Thailand and the Philippines. The latter has hardly any single-person households and reports the largest average household size. The Filipino does not relish being alone and, in our language, there is no specific word for "privacy". The closest to it is "to be alone" and to be alone is "to be lonely".

(3) Taiwan, Korea, and Japan exhibit the typical urbanization-modernization pattern of smaller households as place of residence becomes more urbanized. Malaysia, Thailand, and the Philippines have larger urban than rural households.

(4) Contrary to the image of the large classical extended family, the majority of households in East and Southeast Asia are nuclear, but at some time in their life, most of them have lived in an extended family for brief periods. Korea, Hongkong, Japan, Singapore, and Taiwan fit the theory that the nuclearization of the family accompanies increasing urbanization. Thailand, Malaysia, and especially the Philippines do not follow this trend because there are more nuclear households in the rural areas. One of the explanations for this is the relative ease with which a house can be built with light materials because there is no real cold weather to contend with. Young, newly married couples can, therefore, set up their own households.

(5) The Philippines and Thailand are trying to make the best of both worlds by having a family system which is residentially nuclear but functionally extended.

Patterns of assistance to relatives

The nuclear Filipino household is not at all free from extended family norms even though it is residentially separate. In actual daily operations, extra household family assistance in cash or kind takes place across both lineal and collateral relatives and encompasses cousins. There are very few households that are able to get along without helping others and being helped in return. Family assistance patterns are usually reciprocal and rarely parasitic, whereby a less fortunate family member "feeds on a host" (a better-off relative) without contributing anything in return. But even relatives are "relative" and some are closer than others. Propinquity makes for closer relationships among relatives.

Family obligations and entrepreneurial behaviour

Behavioral scientists have all too frequently emphasized the negative effects of extended family relations on the aspiration and achievement of individuals because of the pressure to share "good fortune" with less well-off relatives. What is often overlooked is the supportive role of the extended family in the individual's efforts to achieve both for himself and for his family's upward mobility. It is not unusual for siblings to take turns helping each other through college so that everyone in the family may be better-off. A study of agricultural entrepreneurs provides some evidence on the noninhibitory effects of family obligations on entrepreneurial behaviour. Although they think more relatives would expect assistance from them, with business expansions and financial growth, it would not inhibit their growth. They feel they have an obligation to help less fortunate relatives. There is a common belief that, in order for luck to continue, good fortune must be shared. However, this concern for relatives does not mean that kin relations are allowed to dominate business decisions. Another illustration of the role of the family in economic entrepreneurship can be found in the rural banking system in which local banks have been organized as family enterprises. There have been very few failures when compared with the cooperative credit system which has had a very poor record.

The large family and the meaning of children

What do children mean to the large child-centred Filipino family? Childlessness

is viewed as an unfortunate, lonely unfulfilled state. Children mean joy and happiness; they are gifts from God; they strengthen the bonds between husband and wife; they lighten the burden of household chores for the mother; they are contributors to the family income; and sources of support for old age. They also serve as inspiration and motivation for parents to work harder so that all the best can be given to them. Comparative data from other countries show the special value which Filipinos place on the large family. Perceived economic benefits from children are higher and large numbers of children are seen less as an economic burden, with more emphasis on emotional gratification from children. The Filipino's definition of a small or a large family is larger than that of other nationalities. They give unusually high ratings to most reasons for wanting another child and many motivations for having children appear to be truly stronger among Filipinos. The concept of children as an investment and security for the future is a long-range view which involves present sacrifice and deferred gratification. There is evidence that, in fact, children seem to stimulate fathers to work longer hours at the expense of leisure. It appears that, in a large Filipino family, parents and children survive in a self-sustaining, mutually reinforcing system where each other's needs are taken care of, both for the present and for the future.

Socialization within the family

In the socialization of children, obedience and achievement orientation are very much emphasized. Obedience to parents is the mark of a good child. Good school performance is encouraged and rewarded irrespective of the child's sex because education is regarded as an important economic investment. The bright child, whether male or female, is a definite asset. Helping on the farm is an obligation expected of children, for which services they should not be paid. The strength of this family norm is evident in the relatively high proportion of unpaid family farm labour. What is intriguing is that, within the family, following parents is the approved behaviour for youths, but outside the family it is permissible to express independent and even contrary opinions to elders. This duality of behavioral expectations probably offsets the inhibitory effects on "outside behaviour" which obedience and submissiveness at home create in the child.

Task allocation and task performance in the household

Father and mother jointly assume responsibility for allocating household tasks to the children on the basis of age, sex, and ability. Certain chores, especially the more physically-demanding ones, are assigned more to boys than to girls. More recent studies, however, indicate that sexual division of labour in the household is not as rigid as assumed. Husbands participate in household activities more traditionally defined as woman's work. Sons and daughters are involved in the same activities which in the past were more specifically defined as male or female roles. From the economist's view, time and task allocation in the household is made in such a way as to maximize the utilization of human resources at its disposal for maximum productivity to meet the family's needs, not only for its livelihood but also for its own general welfare.

In-depth studies of household's utilization of time with respect to income-earning, nonincome home production, and child care show that farm families spend more total time than nonfarm families on these three types of activities. As expected, fathers spend more time on income-earning and mothers on nonincome home production, but children's contribution to home production and child care activities is not insignificant. Although children at an early age are a dependency burden, they readily become useful for performing chores and for taking care of other children.

Patterns of decision-making

Filipino wives as housekeepers actually function as "co-managers" of the household rather than mere implementors of their husband's wishes. The wife is the uncontested treasurer of the family and most decisions made in the household, on the farm, and in financial investment are made jointly by husband and wife. Although decisions on production and consumption loans are mostly made jointly, the wife exercises more influence in deciding when to repay the loan. Finally, most Filipino wives are not only housekeepers and joint decision-makers, but are also companions to their husbands even outside the home. They are not kept at home while husbands pursue their separate social lives.

CHAPTER VI

THE FILIPINO WOMAN: WIFE, MOTHER, WORKER, AND CITIZEN

Images of the Filipino woman start from the accounts of stories that the pre-Spanish Filipina occupied a high position in society relative to the male, although even then she was taught to regard her family and her home as her principal consideration in life. Despite the Spaniards' efforts to make her submissive there were attempts at self-assertion in an activist fashion; hence the concept of Maria Clara as the ideal Filipino woman even during those times is being challenged now. The image of the contemporary Filipina focuses on her increasing visibility as a participant in the labour force, even invading traditional masculine occupations. However, the glorification has really centred on women who have excelled in their respective professions. Despite claims of gains made by women in the world of work, there are some complaints of discrimination. Popular writings on the contemporary Filipino woman have contributed to further images of the Filipina. What emerges is a woman of contradictory assets and facets - a woman who presents at least a double picture. She is said to be exalted to a pedestal by history and tradition and yet she is low in the pecking order. There are arguments as to whether she still fashions herself as a Maria Clara, "coy, retiring, and subservient," who needs to hide her intellect in order to be loved by man. On the other hand, she is supposed to have power and influence unofficially and in private.

The most rhapsodized of the Filipino woman's image is her femininity, which is said to be a product of the unique blending of her Asian, Spanish, and American ancestral and cultural heritage. Although there are some misgivings on the absolute virtue of femininity, there seems to be a persistent desire even among advocates of women's rights to preserve it as the Filipina's trademark. The pursuit of beauty also appears to be a national preoccupation. While there are those who think that the modern Filipina has become "enlightened, well-versed, well-read" and sexually free, there are others who see the Filipina as still "coy, patient, and understanding" with the home as her domain despite her pretensions to modernity.

At the moment, the Filipino woman is a confusing picture created by scattered statistics, a little history, and a dose of female chauvinism, basking in the glory of being known as one of the most "emancipated" among many of her counterparts around the world. There is a great deal of romanticism about her, doubtless generated by the mood, happenings, perceptions, and rhetoric surrounding the elite among Filipino women. Nevertheless, the images projected are conflicting in so many ways that someone was prompted to ask: "Will the real Filipina please stand up!"

To move away from romantic imagery and to appreciate her actual status and role in life as a woman, we must keep in mind the socioeconomic situation of the country; the family and household environment she lives in; and the level of amenities to which she is heir. Since the majority of Filipino families are poor and live a predominantly subsistence existence, it can be deduced that the majority of Filipino women are poor and live a predominantly subsistence existence. Moreover, more than *two-thirds of them* are really village women preoccupied with day-to-day survival. Most of them are neither college-educated, nor elite, nor ladies of leisure.

This chapter empirically examines the Filipino woman in six aspects of her life: (1) matrimonial risk-taker; (2) child-bearer; (3) member of the labour force; (4) working wife; (5) citizen; and (6) female (77).

The Filipino woman as a matrimonial risk-taker

Demographic statistics

The world is supposed to be almost one-half male and one-half female. The Philippines is no exception. As of 1975, there are almost *20.8 million* Filipino women

of all ages, sizes, shapes, and shades of brown gracing our villages, towns, and cities. Population figures of 1970 showed that one-half of our people are below 15 years old. The median Filipino is 17.7 years old but females are slightly older (18.1) than males (17.3), and the urban older than the rural. The oldest group of all is the urban female who is 20; whereas, her rural counterpart is only 17.5 years old. The youngest group is the rural male whose median age is less than 17 years (81).

From 1903 to 1960, there was a preponderance of males over females, but in 1970, the trend was reversed. There has been an increasing *"femalization"* of our population as evidenced by the fact that from 1939 to 1970 the number of males per 100 females has declined from 101.6 in 1939 to 98.8 in 1970. The age groups 15 to 34 seem to be the most female of all in 1970, according to the Census of Population and Housing, a fact which should have implications for courtship. Is marriage the goal of every Filipina? If it is, would this mean greater aggressiveness on the part of women in search of men who are in shorter supply?

A breakdown of data by province indicates that, in 1970, Palawan ranked first in the ratio of male to female inhabitants with 109.7 males for every 100 females. It has the most males of all provinces. Palawan was followed by several Mindanao provinces such as Davao del Norte with 109.5; Agusan del Sur, 105.9; Bukidnon and Davao Oriental, 105.0 each; Lanao del Sur, 104.5; and South Cotabato, 104.4. On the other hand, 29 out of 67 provinces have more females than males with Manila ranking lowest in the ratio of male to female inhabitants with 93.2 males per 100 females. Next comes Capiz with 94.1; Bulacan and Ilocos Sur with 94.4 each; Antique, 94.6; Aklan, 94.8; and Rizal, 95.0 (272, p. 85-86). Given these two different situations in ratio of males to females, would there be a difference in courtship and marriage practices?

One explanation for the "femalization" of the population is the higher mortality and shorter span of males. For some reason, there are more males than females who die even among infants. Of total deaths registered from 1970-72, more than 56% are male and only 43% are females (272). Related to this is the longer life expectancy for females, 60.3 years in 1975, and only 56.6 years for males (44). The difference is 4 years in favour of females. A consequence of this is that there are more widows (6%) than widowers (2%).

Marital status and age of marriage

The family is considered a basic institution in Philippine society and marriage is still regarded as an indispensable component of it. Because a woman is always part of a marital union, we need to know what is happening to marriage because it is a major determiner of her social status. Because there is no divorce in the Philippines marriage seals the fate of a woman for the rest of her life unless death claims her spouse. Marriage is therefore the risk of a lifetime. Over a 10-year period 1960-70, the proportion of married persons among the population 10 years old and over declined for both males (48.9 to 47.0%) and females (49.3 to 47.0%). Concomitantly, the proportion of *"never married"* increased by about 2.4%. This does not, however, mean that marriage is going out of style because the crude marriage rate increased from 10.4 per thousand population in 1960 to 12.8 in 1972 (272). A significant trend is the increasing age at marriage (Table 89). The mean age at marriage for females was 20.9 years in 1903 and 23.4 in 1973. That marriage is still very much "in style" despite the delay is evident in Table 89. Although marriage below 24 years has diminished considerably as shown by the increase in the percentage of single people from 1903 to 1973, the proportion who remain in this state from ages 30 to 49 has declined from 42.2 to 33.7 in 1973. In other words, "marital bliss" continues to be a woman's objective and apparently being an *old maid* remains an unwelcome state. Marrying later does not mean not marrying at all.

Rural-urban and regional comparisons are given in Table 90. Marriage seems to occur latest for Bicolanos (24.6 years); Manileñas (24.5); and for those in Central Luzon (24.4). The youngest brides are women from Cagayan Valley (20.1 years); Northeastern Mindanao (22.3); and Ilocos (22.6). In general, for all regions, males marry two years later than females (25.7 and 23.7 years, respectively); and rural females 3 years earlier than urban females (22.3 and 25.2 years, respectively). For males, the mean ages for marriage are 27.3 for urban and 24.8 for rural. It is very striking to note that the highest proportion of unmarried females 50-54 years old are in Manila (20.2%); urban Eastern Visayas (18.6%); and rural Cagayan Valley (18.7%). The high incidence of spinsterhood in Manila and urban Eastern Visayas may be explained by the higher proportion of females in these places, but the case of rural Cagayan Valley cannot be explained

because, in this region, females seem to be in shorter supply relative to the males. The most significant observation one can make is the consistent tendency for the rural sector of all regions to have a much lower proportion of single women than the urban sector. At the national level, 43% of urban women and 30% of rural women 15 years and older are single. Socioeconomic and cultural factors doubtless contribute to the pressures for early marriage in the village. From countryside conversations, one gets the impression that a woman who is still single at age 25 is already labeled *matandang dalaga*, old maid, and is often the object of not very kind jokes.

Compared with other Asians, however, Filipino women are marrying later, except for the Japanese as shown in the following figures on mean age at marriage in 1960 (120, p. 215-233):

Pakistan	16.5 years	South Korea	21.3 years
India	16.8 years	Thailand	21.9 years
Malaysia	19.3 years	Ceylon	22.0 years
Sabah	19.4 years	Hongkong	22.3 years
Sarawak	19.8 years	Philippines	22.3 years
Singapore	20.5 years	Japan	24.1 years
Taiwan	21.0 years		

The increasing age of marriage has a number of important consequences and implications, some of which have been explored by Peter Smith:

"Nuptiality delay may be an avenue to a range of social changes even more profound than that represented by reductions in family size.... family planning policies worldwide must eventually be supplemented by the evolution of new non-procreative social roles for adult females and moreover that the family institutions must evolve and stress largely socio-economic functions rather than procreative ones. These new roles for single and married adults and widespread public tolerance for their adherents - must evolve in Filipino society soon. The accelerated delay nuptiality projection with family planning indicates a total of 8.4 million single female adults in the year 2,000 as against 5.1 million were there no delay in nuptiality. That is 9.5 percent of the population in the year 2,000 will be female, single, and unmarried and 7.2 percent will be under 30 as well, even if there is no further nuptiality delay. Accelerated delay would mean that 12.6 percent of the year 2,000 population - one person in eight - would be female and unmarried. And one in ten would be under 30. These single women must be provided meaningful places in the adult non-familial world or they will turn to early marriage and child-bearing as an alternative" (305).

In searching for an explanation for this trend toward later marriage, Smith cites the following social and economic forces:

"The literacy level, e.g., already high in 1960 increased by another 11 points before 1970. Of major importance is a continuing transition in female labour force participation especially in the white-collar occupations. That this extra-familial activity has been a very important deterrent to early marriage is clear in the following figures from the 1968 National Demographic Survey. Among women age 30-59 in 1968, the mean age of union for those who have not had any work experience before marriage (about 3 women in 10) was 0.7 years below the mean for all women. Women who had been employed in a family enterprise (about 4 in 10) also married early 0.1 years below the average. However, those whose employment before marriage had drawn them outside the context of family and family enterprise into the non-familial world of wages and salaries married significantly later - 1.7 years later than the over-all average and 2.4 years later than women who had not worked before marriage at all. One married woman of six in 1968 had had a wage or salary job before marriage. And the proportion of women currently with such a job continues to rise" (304).

Smith's other preliminary insights pertain to the emergence of a new life cycle of the Filipina which he gleaned from the following observations:

"The period of pre-adult independence which was almost nonexistent in 1900, had expanded somewhat by 1960 as a result of marriage delay, but by 2,000 may be expected to be a significant and identifiable period of the female life cycle - the time of exploration and self-discovery between the end of high school and entry to marriage."

"The period of infant rearing was pushed back slightly between 1900 and 1960 (due to delayed marriage); but may be both delayed and shortened substantially by 2,000. By that time, infant rearing may largely occur between ages 25 and 40."

"A woman's first grandchild arrived around age 39 in 1900 and around age 42 in 1960. But because of delayed marriage in both generations, the first grandchild does not arrive until age 50 in the sequence for the year 2,000."

"Because infant rearing ends increasingly early while grandchildren arrive progressively later, a new female life cycle stage emerges - the period of *mature independence* generally characterized by the absence of direct childbearing obligations. Whether this emerging life cycle phase is seen as an opportunity or a burden is perhaps one of the emerging social issues of the future" (306).

Characteristics of marital partners

In every wedding there is a question which is always asked: "Who is he or she getting married to?" The expected answer to this is not necessarily the specific name but rather the social identity (occupation, education, income, etc.) of the person concerned. Experience has shown that in many ways, in the case of a woman, the credentials of her groom determine her future, particularly if she goes through married life as a housewife-housekeeper with no source of livelihood or occupation of her own. If the norm of male superiority still holds, a man is expected to marry someone younger and of lower status or at least someone at his own level. That males marry females younger than themselves is borne out by data presented earlier. About two-thirds of rural wives and rural husbands marry spouses of the same occupational background. The homogeneity of occupations in rural areas probably contributes to this tendency. What is worth noting is that more wives (21.1%) than husbands (16.4%) marry above in terms of occupational background. In the urban sector, the proportion of wives marrying upward is higher (32.4). Only 27.9% of the husbands are able to do so. In general, husbands have a greater tendency to marry below and wives have the opposite fortune. Urban wives, however, have more opportunities than rural wives to move upward in marriage (79).

Table 91 indicates that, even in terms of educational attainment, more wives than husbands (30 vs 23%) tend to marry spouses with higher education than themselves. However, at the lower and upper levels of educational attainment, the proportion of husbands and wives marrying spouses of the same level is greater than that at the middle level, i.e., wives and husbands with no schooling or only elementary education marry spouses with the same education, and college graduates tend to marry college graduates. On the other hand, high school and college undergraduate males tend to marry spouses with less education than themselves. However, more wives than husbands in these two educational categories find themselves with higher educated spouses.

Whether in occupational background or in educational attainment, more wives than husbands marry upward. This phenomenon is observed more in education than in occupation.

Patterns of marital union

If marriage is the destination of most Filipino women, we would like to know what is happening to patterns of marital unions. The 1973 National Demographic Survey reveals a number of trends:

(1) Although the majority of weddings are still solemnized in church (74%), 16% are married by a Justice of the Peace. The latter marriages are slightly more prevalent among urban than rural couples (17.7 versus 15.5%), with Manila, Ilocos, and Central Luzon showing higher rates than the national figures. Quite often, in the movies and in magazine stories, "immorality" defined as living together without formal and legal ceremony is associated with the "evils" of the city. There is a higher incidence of consensual union or common-law marriage in the rural than in the urban areas (7.2 versus 6.7%) with Eastern Visayas and Ilocos leading in this practice (13.7 and 12.2%, respectively). Central Luzon appears to be the most "moral" in this regard (2.3%).

(2) Traditionally, a Filipino woman is supposed to be "pure" and virgin until marriage. That premarital union takes place is evident in the 7.4% who have lived together before marriage. The urban occurrence is 1% higher than the rural one (8.1 versus 7.1%). If couples live together before marriage, we could expect premarital pregnancy, as revealed by the 14% whose date of first pregnancy came before the date of marriage or within one year after.

(3) Among the marriages that have been contracted, about 14% have been terminated

mainly due to death of husband (68%) and 17% due to separation or divorce. The latter represents 2.8% of total married couples studied. The proportion of separated or divorced is 3.7 for urban couples and 2.4 for rural couples. Eastern Visayas and Manila report the highest percentages of marital unions terminated because of divorce or separation (24.0 and 21.7).

(4) The romantic notion of one-man-one-marriage for the Filipina seems to be very much the trend with 93% of wives having only one marital union. About 4.5% have had two or three marriages. For husbands, the trend is similar, although more of them (6.4%) have had more than one marriage. In addition to only one marriage for practically all couples, absence during the period of marriage is very infrequent, being on average only 1.5 months. For those who marry again, the average period between unions is 4.5 years. The period of widowhood is longer in the rural than in the urban sector (5 versus 3 years). In Cagayan Valley, the waiting period between marriages is very long, 14.5 years.

(5) For the few women who marry widowers, there are many stories of the unpleasant relations between step-mother and step-children. Although the widower who remarries has an average of more than three children from a previous wife, the problem is considerably minimized by the fact that 93% of these couples in a second marriage do not have children from previous wives living with them in the family. The remainder have, on average, less than one child with them.

Increasing life expectancy and duration of marriage

Success in the prolongation of life has its corresponding consequences on the length of the marriage period because life expectancy at birth increases faster than delay in age at marriage. Table 92 illustrates the relationship between age at marriage, life expectancy, and duration of marriage. Over a 34-year period, life expectancy has more than doubled (27 years), but age at marriage has increased only by 1.8 years. One immediate effect is that the length of marriage with both surviving spouses has increased from 3.27 to 25.11 years and it has prolonged the years of widowhood before her own death from less than a year in 1939 to 4.55 years in 1973. In 1939, all her years of marriage were child-bearing years. In 1973, three out of the 25 years of marriage were non-reproductive years. Considering that the life expectancy at birth for 1975-80 is estimated to be 63 for females and 59 for males and that age at marriage will probably not increase much beyond the present, the period of marital union with both spouses alive can only be expected to be prolonged further. If marriage is defined as a union between man and woman to last until death intervenes, there must be greater faith and more positive factors in the marriage to keep the couple together over a long period of time. The period of togetherness past the child-bearing stage will also be much longer and, therefore, this is a new era in the life of husband and wife. When the wife eventually loses her husband, it will be at a later stage in her life; she will be older and will probably need more things on which to anchor her life than if she died at a relatively younger age.

The Filipino woman as a child-bearer

Fertility patterns

Among the many images of the Filipina is her prodigious capacity to bear children. If she marries at an average age of 23.7 years, she has about 20 years of reproductive life, with one baby at 3-year intervals. According to the University of the Philippines, Population Institute, "the peak child-bearing ages are 25-34. Nearly half of the average number of children born to all women by the end of the child-bearing period are contributed by these age groups. Although women marry later as mentioned earlier, they tend to have their children early in the marriage. Five out of every 11 births during marriage occurred to girls 15-24 years old, offsetting thereby the influence of delayed marriage on marital fertility" (92).

Table 93 shows how prolific the Filipino woman is. Although the average number of children ever born per woman aged 45-49 is 6.4, there are a number of factors associated with variation in child-bearing capacity. More children tend to be born to women who live in rural areas and agricultural communities; who are not employed outside the home; who marry earlier; and who live in nuclear households. Years of schooling and literacy status do not show the usual negative relationship with number of children which would mean fewer children for more literate and higher educated women. Instead, there is an increasing number of children with increasing educational attainment up to a certain level, beyond which the expected negative relationship becomes evident.

For some reason, there is a general view that rising family income and educational levels tend to bring about lower fertility. In his analysis, Encarnacion posits that "at low income levels of the LDC's, it may well be that a major effect of rising incomes is to enable women to acquire better health and to have greater access to medical facilities and prenatal care, resulting in their greater capacity to bear more children." Below a subsistence level of family income, the mother's health is also substandard and the probability of still births and miscarriages is higher. Fewer children ever born at this low income level are, therefore, not due to deliberate choice, but the reason is simply a biological one. Encarnacion's hypothesis is that there is a threshold level of family income and education such that, below this level, the effect of more income and higher education is to increase fertility. A woman's education and family income have a positive or negative effect on fertility depending on whether or not they fall below a threshold value. At levels below the threshold, more education means better knowledge of health practices, thus enabling a woman to bear more children. The threshold was established to be between Grade 6 or 7 and high school. When a woman's education exceeds this threshold, the negative relationship between number of children and education becomes more effective (128).

On the relationship of female employment to fertility, Concepcion cites the theory of increasing role incompatibility (worker versus mother) as an explanation for family limitation among women who work. "Where the roles of mother and employed woman are compatible, a relation between fertility and employment should not be anticipated. Where they are incompatible the relation will depend on the availability of contraceptive technology... Where contraceptive means are readily accessible, working women presumably would regulate fertility to lessen the strain of incompatible roles" (94).

This theory is a very intriguing one because it calls attention to a number of casual but relevant observations: (1) There are educated middle- and upper-class women who are able to pursue their careers despite many children because they have household help to perform the tasks of child-rearing and housekeeping. (2) For low-income women who have many children, and who work outside the home or on the farm, there are no hired domestic helpers. Here, the pattern seems to be the "older children" taking care of the younger ones or other relatives helping out. Out-of-school youths, especially females, are the usual baby-sitters and household helpers. (3) There are low-income women who tend small stores, do laundry, or sew in the house as a source of income. Children are taken care of in between work and household chores. "Older children" are also called upon to perform quite a few of the needed tasks.

If the theory of role incompatibility holds, we should expect a dramatic reduction in the fertility of the educated middle and upper class when household helpers become more scarce and expensive. But one cannot help thinking that there must be a more powerful explanation for large families in poor rural homes. With the heavy demands on a woman's time and energy for household chores when there are no labour-saving devices, one would think that she would have all the motivation for family limitation in order to lighten her burden. The data on Table 93, however, do not bear this out because rural wives have more children than urban ones. Perhaps what happens in a poor but large family is that children take care of children. This becomes even more possible when children leave school at an early age and, hence, are available for farm and household chores including baby-sitting. In this setting, children assume many responsibilities such as a 6-year old who takes care of baby sister or brother.

Table 93 also shows fewer children in extended rather than in nuclear family households. Other things being equal and using the theory of role incompatibility, more children could be expected in extended households where other relatives are available to assist in the many domestic chores. This is not the case, however. The explanations for fertility differentials remain elusive and the dynamics by which women cope with a large family under conditions of poverty deserves examination in depth before we consider additional roles for women besides that of wife and mother.

The most obvious and encouraging piece of evidence on fertility decline can be found in age at marriage. The longer marriage is put off, the fewer the number of children ever born, with the most dramatic reduction occurring between age groups 20-24 and 25-29. In other words, if marriage can be delayed beyond age 25, the prospects for fertility decline look good. The importance of this factor is summarized thus: "The Philippines is not the only country in Asia with changing fertility levels that must be attributed wholly or in significant measure to delayed marriage" (304).

Table 94 presents total fertility rates of completed family size from 1958 to 1972. A decline is clearly indicated from an average of 6.46 in 1958-62 to 5.89 in 1968-72. An equally noteworthy observation is the regional variations in fertility with Greater Manila manifesting fewest children, 4.08, and Mindanao, more than 7. Bicol and Eastern Visayas report more than 6 children per woman. While levels of urbanization and modernization could explain smaller family size in Greater Manila and Southern Luzon and the larger family size in Mindanao, the family size behaviour of other regions is more difficult to account for in the same manner.

Wives' expectations on number of children

Given the actual family size that Filipino wives have achieved by the end of the reproductive period, does this meet with their preferences and expectations? The 1973 National Demographic Survey reveals the following:

(1) When wives below 45 years were asked if they expect more children, more of the urban than rural respondents replied negatively, with more than 50% of Greater Manila wives expressing this. In addition to rural wives expecting more children, there were also more of them who were uncertain as to whether or not they could expect more children. They also have a higher proportion attributing number of children to God, fate, or chance.

(2) When comparing mean number of children they would have liked if it were up to God or fate, to mean number they would have wanted if they could start married life over again, and to mean number preferred, there is a decreasing number, respectively, from 4.66 to 4.26 to 4.08. These stated preferences are about two children less than the 5.89 actual completed family size mentioned earlier. The urban preference is consistently lower than the rural and Greater Manila wives wanted the least number of children. Mindanao wives tended to want the most number of children and they have the largest completed family size among all the regions.

(3) That children happen without much discussion and deliberate decision-making on the part of the couple is suggested by the fact that more than 40% of the wives have never talked with their husbands about the number of children they would like to have altogether. Again, more rural than urban wives reported this absence of communication with the husband about family size.

(4) The most significant observation one can make from the data is that *practically no one preferred childlessness*. Only 2.8% expressed a desire for only one child. On the other hand, about 15% preferred to have six or more children.

In general, preferred number of children is less than actual completed family size, but *childlessness* and *only* children are not preferred at all. Perhaps Filipino women have a concept of "*feminismo*" which is the equivalent of *machismo* for men. To be barren or not very productive violates the ideal and the norm of woman's major purpose in life. To give substance to this ideal of the ever-married females 15 years and over included in the 1973 National Demographic Survey, only 3.9% had never been pregnant and as expected there were fewer rural than urban wives who belong to this category. Pregnancy establishes fecundity for both husband and wife. It satisfies both *machismo* and *feminismo*. Related to pregnancy and child-bearing is breastfeeding behaviour. Contrary to what many people think, breastfeeding is still practiced by a great majority (84%) of mothers, but it is practiced more by rural (89%) than urban mothers (73.4%), with Metro Manila exhibiting the least (70%). Being a working mother and wanting to preserve the shape of the breast as reasons for not breastfeeding were cited only by urban and Metro Manila wives. Therefore, the decline in breastfeeding is mainly an urban phenomenon. It would be important to find out whether breastfeeding is resorted to for reasons of better health for the baby or for convenience and economy. One does not have to buy milk which is expensive. Because more than one-half of the mothers do not wean their babies until they are a year or much older, breastfeeding among poor mothers should be studied for its effect on the mother's health. Furthermore, it would be interesting to know to what extent the practice of breastfeeding serves as a deterrent to family limitation because the cost of feeding the baby entails no direct cash outlay and theoretically poses no additional burden during the infancy months. One could also ask if breastfeeding is part of the *feminismo* complex. *Feminismo* in the Philippine sense is the *pursuit of femininity* and is not the same as feminism in Western developed countries. Even the elite and articulate among our women are inclined to elevate the status of Filipino women without sacrificing their so-called femininity. It is therefore necessary to determine the dimensions and qualities of *feminismo* as defined by the women themselves.

Attendance at birth

Because Filipino wives bear an average of 6 children, it is necessary to know who helps bring these children into the world. Data from the Philippine Yearbook of 1975 show that in 1972 only one-quarter of the registered births had been attended by a physician; another one-quarter by a midwife; more than one-third by a *hilot* (unlicensed midwife); and less than 4% by a nurse. These national figures are misleading, however, because they hide the regional disparities. Greater Manila had an overwhelming 87% attended by a physician; whereas, only 2.5% were attended in Cagayan Valley. In Bicol and Mindanao, more than one-half of the deliveries were done by *hilots*. Cagayan Valley and Eastern Visayas both reported about 44% by *hilots*. At the provincial level, the provinces registering the most number of births attended by *hilots* were: Davao Oriental, 80%; Davao del Norte, 70%; Agusan del Sur, 69.2%; Sorsogon, 69.1%; Occidental Mindoro, 66.2%; Palawan, 58.3%; Romblon, 57.4%; and Agusan del Norte, 56.1%. A discouraging note is the increasing rather than the declining use of unlicensed midwives (*hilots*) from 33.8% in 1970 to 35.4% in 1972. The significant increases have occurred in Ilocos, Cagayan Valley, and Mindanao. The increase in use of physicians has taken place only in Southern Luzon. In Mindanao, the use of physicians has declined.

There is some evidence that perhaps these traditional midwives are not doing badly in their task. The maternal mortality rate per 1000 live births has gone down from 3.0 in 1960 to 1.3 in 1971. Because more than one-third of registered births were attended by *hilots*, a much higher maternal mortality rate could have been expected. It would be useful to determine the rate for provinces with high use of traditional midwives. The other related question is whether reduction in maternal mortality rate encourages more pregnancies because the risks of mortality at child-birth have been minimized considerably. A woman does not have to be afraid anymore about going through the child-bearing process.

Child-bearing and nutrition

Filipino women, particularly the low-income ones, make a considerable sacrifice in their child-bearing role. A 1975 report of the Food and Nutrition Research Institute (FNRI) says that the mother suffers most from malnutrition. Typically, it is the father and older children who have the largest share of food at mealtimes. The effect of malnutrition is most acute when women are pregnant or nursing. Community nutrition surveys of two rural and two urban low-income areas in 1965 and 1972 found that the calorie intake of adults was 81% adequate in relation to Recommended Daily Allowance (RDA); toddlers 1 to 3 years, 64%; older children 4 to 9 (69%); pregnant women, 64%; and lactating women, only 46% adequate. The report recommends that Filipino women should eat more because they are often lacking in basic nutrients, protein, and iron, thus making them susceptible to anemia. They also point out that, among low-income families, it is erroneous to let the men have the most and the best food. Low-income, which is supposedly responsible for malnutrition and consequent vitamin deficiency in women, did not affect men. With each pregnancy, the woman's supply of nutrients dissipates even further, thus making the incidence of malnutrition more common among women with more than three children. One effect of the poor nutritional status of the pregnant mother is the higher mortality rates among their children/fetus due to abortions, miscarriages, still births, and infant/toddler deaths (263).

These findings are corroborated by baseline data collected by the Philippine Business for Social Progress (PBSP) from their nutrition programs from 1973 to 1976. They studied three urban and three rural low-income communities with average weekly household incomes ranging from P38 to P83. Of the 970 women with pre-school children, 522 or 54% had experienced fetal or infant toddler mortalities. On the whole, urban mothers had a slightly higher incidence (55%) than rural mothers (50%). A higher proportion of infant/toddler deaths was experienced by rural women (30%) than urban women (22%), but the latter had almost twice as many miscarriages, abortions (29%) than the former (14%) (263).

It would be apropos at this point to examine the possible reasons for the practice among low-income families of feeding men and older children better than the women. Because men are regarded as breadwinners and they supposedly perform the more physically demanding jobs, the women allow them this privilege. Any impairment of the wage-earner's working capacity is precarious to the entire family's existence. The advice that women should eat more, given a finite quantity of food available to the entire family, is not likely to be heeded. What seems more crucial is to limit child-bearing to prevent further drain on the mother's health. Another easier-said-than-done solution is to help increase family income. An observation relevant to this was discussed in the Chapter on *Farms and*

Farmers. Compared with other occupational groups, farmers and farm labourers have lower calorie intake and higher energy expenditure; hence, they may be better-fed than their wives but still undernourished for their jobs. The problem, therefore, is not a simple one of men in the low-income household being more privileged than women in food intake.

In trying to enlist the participation of low-income women in nutrition education programs, the livelihood, family income, and household chore preoccupations of the wife cannot be ignored. They are not at "leisure" to benefit from educational programs even if such are designed purportedly for their own welfare. The Philippine Business for Social Progress experience in this regard is instructive. From 2 years of operations in three low-income communities, 69% of 2098 mothers completed a series of 8 to 10 training sessions on nutrition, but absenteeism and dropping-out were perennial problems encountered. Mothers cited the following reasons for such problems: occupied with work on the farm or in other jobs; busy with household chores; need to look after children; interest in income-generating activities; inclement weather; distant training site; and husband's opposition.

In designing strategies to involve low-income women in community, and in national development programs, it must be realized that livelihood and household activities occupy the major part of their daily lives. "Free time" is not as free and as available as is often assumed.

The Filipino woman as a member of the labour force

Female participation in the school system

Because education is an important determiner of employment, we are concerned with the education of Filipino women. As shown in the Chapter on *Education, Development, and Social Structure,* Filipino females are at par with males in school attendance. What deserves attention is the regional disparity which puts Mindanao, Eastern Visayas, and Cagayan Valley as the most disadvantaged areas, with Manila, Southern Tagalog, and Central Luzon reporting the highest proportion of 6- to 14-year-olds in school. Within each region, male-female differences are not significant, but regional disparities on school attendance are fairly substantial. The situation with respect to literacy is similar. From 1960 to 1970, the literacy rates increased from 73.6 to 84.6% for males and from 70.6 to 82.2% for females. Again the males have only a slight advantage over the females, but the rural-urban differentials are quite significant. For 1970, the corresponding literacy rates for urban and rural males are 93.9 and 80.2, and for females, the rates are 91.8 and 77.2, respectively. One also observes that the gap between the urban and rural females is greater than that between urban and rural males. The females with the lowest literacy rates are from rural Sulu, 31.2%; Ifugao, 44.1%; Mt Province, 52.2%; Cotabato, 56.9%; Lanao del Sur, 57.8%; Benguet, 66.8%; Zamboanga del Norte and Zamboanga del Sur, 67.8%. In these provinces which are mainly Moslem and ethnic minority groups, the difference between male and female literacy is higher than in other provinces which suggests that there are sociocultural factors affecting the status of women which are not operative in the majority of the population. However, the chasm between urban and rural seems most pronounced in these eight provinces reported to have the lowest literacy rates for females.

Statistics on school enrolment at all levels of education show no disadvantage on the part of the females (Table 95). On the contrary, at the college and graduate levels, there are more females than males. Table 96 shows an increasing trend toward "*femalization*" of school graduates at different levels over a 5-year period from 1965-70. Since more than 90% of enrolment at the college level are in private schools, Table 96 gives us a good idea of what is happening in different major fields of study in college. As expected, there are male- and female-dominated fields: nautical science is male; food, nutrition, and dietetics is female. Agriculture, engineering, and technology are mostly male with some female inroads. Law and foreign service, although predominantly male, is increasingly becoming female. Music and fine arts are still largely male. Commerce and business administration are more than one-half female, and so are liberal arts and the sciences. In the case of the latter, it has become more female in 1970 than in 1965. Teacher-training and graduate studies started as only one-half female but have grown more so over the 5-year period. It should be noted, however, that at the doctoral level, there are still more males but the proportion of females has increased from 17.6% in 1965 to 45% in 1970. The medical sciences has dramatically increased its female component from 48% in 1965 to 84% in 1970, but this is due to the inclusion of nurses in this category. The case of physicians will be discussed later. Vocational courses tend to be more sex-linked. Beauty and fashion courses are for women and technical trades are for men.

Higher education and some professions

Given the marked attractiveness of college education in the Philippines, what major fields of study do Filipinos gravitate to and what is the extent of female participation in these courses? The most important change which has occurred in college education is the rapid decline in the attraction of teacher-training. From the data on college graduates which appear on Table 96, the proportion of total teacher-training graduates in 1965-66 was 55.0%, but went down to 42.3% in 1969-70. Table 97 shows a continuing decline as observed in enrolment patterns: In 1968-69, 31.4% of college enrolment was in teacher training, but in 1971-72, this had dwindled to 14.7%. This trend is significant because it is a predominantly female occupation (81.3%) and has become even more so despite the decreasing total enrolment in it. Teaching has become unattractive because of surplus teachers and low pay. Teachers are the lowest paid of all professionals. Fast rising in popularity is commerce and business administration; graduates in this field made up 18.6% of the total in 1965-66, and 28.5% in 1969-70. The proportion who took this course increased from 28.4% in 1968-69 to 38.1% in 1971-72. This field of study has also become increasingly more female, from 49.7% in 1968-69 to 57.6% in 1971-72. All the fields of study in college have, in fact, shown "*feminalization*", including agriculture, law, foreign service, engineering and technology, and even nautical sciences (Table 97).

The health sciences are of particular interest because of the female dominance in nursing, midwifery, denistry, dietetics, and pharmacy. In 1973, those who took the National College Entrance Examination were asked about their occupational preferences. Nurse, midwife, and laboratory technician were the most popular choices for the girls (126). Employment opportunities abroad doubtless play an important role in this choice, particularly because of the dollar-earning potentials, which are 5 to 10 times more than what they would earn at home. However, the overseas demand for doctors, nurses, and midwives is not likely to continue indefinitely.

Because female physicians are a rarity in many countries, developments in the Philippines with respect to medicine are worthy of further examination. Tables 98 and 99 show the dramatic entry of women in this profession which was practically a male monopoly before 1930 (2.5% female). As of 1969, the percentage of female physicians has risen to 43.5. It is obvious that in 1970 there were more female physicians among the younger age groups of 30 and below and more males among the older doctors (Table 98). The enrolment figures for 1970-71 show that there were more females (51.0%) than males in the medical schools. The trend is now in the process of being reversed in favour of women physicians.

Architecture, which is also a masculine field, has opened up to women. From 1921 to 1931, there were absolutely no women in this field. Over a 50-year period, 1921-71, females in the profession have inched up to 10% of the total registered architects (251, p. 22). Agriculture is another field traditionally associated with men, but there are definite signs of female "invasion". In the College of Agriculture, University of the Philippines at Los Baños, which is the leading institution in this field, the female enrolment in the early 1960's was only about 25%; in 1971 this has grown to more than 40%. However, in a study of 687 women agriculture graduates, there is some evidence of employment discrimination due to sex as indicated by the 20% who mentioned male preference as a reason for being turned down in their job applications. The same factor was mentioned by 4% of the respondents as an anticipated difficulty in transferring to desirable jobs. The current jobs in agriculture for women are in teaching, extension, and research. Male agriculture graduates have these same general types of jobs. Job opportunities also seem to be available for women agriculturists: One-half of these female graduates were employed after the first application and 75% were employed after the third application. Contrary to the earlier fear that perhaps female agriculturists would not be employed in the field for which they were trained, only 10% found their first jobs not in agriculture. Only 6% of all respondents rated their current jobs as unsatisfactory. Apparently, women graduates in agriculture find their place in agricultural fields (302).

Because the teaching profession used to be the most attractive field for women, it is instructive to look at the nature of the jobs that they hold. The higher the educational level to be taught and the higher the position in the educational system, the higher is the proportion of males and the lower the proportion of females occupying these positions. To illustrate, in 1968-69 about 98% of kindergarten, 79% of elementary, and 61% of secondard school teachers were females. College teachers and graduate school faculty were only 51 and 48% female, respectively. But more disturbing is that, although the majority of teachers were females, 65% of principals and supervisors and 94% of superintendents were males (33). Perhaps this is another disincentive to prospective

teachers in addition to low salary and excess supply. They have limited job mobility. Because of the continuing decline in enrolment for teacher-training, a reduction in teacher supply can be expected, and hopefully their relative scarcity will bring about a higher market value for their services.

Education and labour force participation

How do different levels of education affect male-female participation in the labour force? Table 100 shows a substantial difference in female labour force participation rates between high school and college undergraduates (34.5%) and college graduates (79.9%) in 1965. Although the male participation rate among college graduates is also higher than among those with less education, the difference is not as large, the rates being 90.5 and 75.5, respectively. For females, therefore, the opportunity to join the labour force almost doubles among those who graduate from college. Table 101, using data from the 1968 National Demographic Survey, shows similar trends with the additional observation that the effect of college education on participation rates is even slightly higher for the rural sector. It is also significant to point out that high school graduates and college graduates have significantly higher labour force participation rates than those who went to high school or college but did not graduate. The possession of the diploma indicating completion of all requirements seems to make a great deal of difference in joining the labour force.

Another way of analyzing this phenomenon is to examine the *gross years of active life* which is defined by the UN Department of Economic and Social Affairs as "the average number of economically active years for those persons out of a generation who do not die before retirement age. It measures the expected active years of a generation of men from the time they enter the labour scene to the time they return to inactive economic life" (233). Again, we see in Table 102 the much longer *economically active life* of women who have college degrees as against even those who went to college but did not obtain a degree, as shown in the 25-64 age group. The gross years of active life of the former are 34.8; whereas, the latter have only 21.8 years. For males, there is not much difference between college graduates and undergraduates with respect to number of economically active years (39.1 versus 37.5) before retirement. The favourable effects of higher education on women's work participation rates are also observed even if they are married. Among married women, those classified as high educational level or those who have completed high school, those who went to college, and those who obtained college or graduate degrees have higher work participation rates than married women with lower educational attainment. In other words, when women have high educational attainment, they tend to continue working despite marriage and a family. In the case of the males, they tend to be in the labour force whether they are married, single, divorced, widowed, or separated. The social definition of man as the breadwinner seems to be very compelling indeed!

All the data which we have analyzed would indicate that, among males, level of education does not determine labour force participation as much as it does among females. College education is a very important variable, not only in increasing female work participation rates, in lengthening gross years of active life, but also in reducing unemployment rates. The positive effect of college education continues despite marriage. Apparently, once a woman obtains a college degree, she is committed to a career until retirement, regardless of marital status.

Major activity and employment patterns of urban and rural women

If we are to assess the status of Filipino women comprehensively, their major activity in life instead of just their occupational status must be examined. Among Filipino females, 10 years old and over, only about one-third are in the labour force and almost one-half of them (48%) are classified as *housekeepers. This is the most significant major activity of women in this country.* Rural-urban comparisons show that more of the village women (50%) than of the city girls (44.0%) spend the major part of their life in housekeeping. Conversely, there are more urban than rural women who are employed (30.0 versus 26.0%) (Table 103). Urban labour force participation rate for females is higher than the rural rate. The average rate over a 9-year period, 1965-74, was 36.1% for urban and 33.6% for rural females. Employment patterns also show the contrast between urban and rural women as revealed in Labour Force Surveys. In 1974, one-third of urban females were in service occupations; about one-quarter in sales; almost 16% in professional-technical; and 12% in crafts and production-process work. The proportion of women in professional and technical occupations is more than three times (15.7%) as much in the urban as in the rural areas (4.6%). *Another important revelation which negates popular*

notions and impressions is that, instead of a reduction of labour force in farming, there has been an upward trend, in the rural areas, for females in this occupation (53.6% in 1965 to 59.7% in 1974). The other significant occupations for rural women are crafts and production-process work, 14.7%; sales, 13.6%; and service, 5.6%. Data on employment by major industry group show that urban women are employed mostly in four industry groups - commerce, 27.1%; domestic service, 25%; government, community, business, and recreational services, 21.3%; and manufacturing, 14.7%. For rural women, 59.8% are in *agriculture;* 14.9% in manufacturing; and 13.7% in commerce. Because agriculture is a major employer of rural women, it is important to have a breakdown of employment in specific industries of agriculture. It should be noted that about 77% of females in agriculture are employed in rice and corn farming; 8% in coconut farming; 6.8% in other crops, livestock and poultry production; and 4% in sugarcane farming. Farm work, therefore, is far from being a male occupation.

For another more detailed picture of employment for females 15 years and over, the three-digit occupational categories from the National Demographic Survey of 1973, which was conducted by the Population Institute of the University of the Philippines and the National Census and Statistics Office, are examined. The Survey reveals that the most significant occupational categories for urban women are: maids, laundrywomen, and nursemaids, 23.7%; teachers, 11.08%; clerical and office workers, 10.33%; sari-sari store owners, 10.33%; textile and related workers, 9.46%; salesgirls, 7.46%; market vendors, street and sidewalk vendors, and peddlers, 6.0%; dressmakers and tailors, 4.17%. Workers in various manufacturing industries such as leather, cigarette, ceramics, plastics, food processing, packing, etc. amount to only 3.23% of urban female employment. The "glamour" professions such as architects, professors, college presidents, deans, physicians, lawyers, accountants, and economists make up only 2%; administrative, executive, and managerial workers are less than 2% (1.84%) of employed urban women. The females who often fill the pages of our Metropolitan newspapers and magazines are a small, privileged group of elite Filipinas.

For rural women, the most frequently enumerated of the three-digit occupational categories are: farm workers mostly in crop production, 59.13%; farmers and farm managers, 18.44%; teachers, 14.64%; sari-sari store owners, 13.38%; maids, laundrywomen, and nursemaids, 13.26%; basket weavers, 12.34%; market vendors, 11.39%; dressmakers and tailors, 10.23%; sewers and embroiderers not in factory, 7.30%; and salesgirls in wholesale and retail stores, 7.11%.

The proportion of females in each major occupational or major industry group is one indicator of the sex-linked character of employment in these occupations. For the Philippines as a whole, in 1974, the most *female* industry groups and occupations are: domestic service, 86.0%; professional and technical, 59.4%; and saleswork, 57.9%. The most *male* occupations and industries are: transport, 98.5%; construction, 98.0%; manual work, 97.3%; mining and quarrying, 95.7%. It is interesting to note that the occupations that require manual and physical exertion are almost exclusively male. On the other hand, there are no occupational groups which can be considered as almost exclusively female although domestic service is the most female of all.

Over a 9-year period, 1965-74, the following occupational groups became *more female:* professional-technical, from 56.3 to 49.4%; clerical and office work, 27.6 to 45.6%; government, community, business, and recreational services, 36.7 to 47.5%. On the other hand, the following became *more male:* proprietors, managers, administrators, and officials, from 44.7 to 79.9%; saleswork, from 39.1 to 42.1%; craftsmen and production process workers, from 57.1 to 60.9%; manufacturing, from 48.6 to 56.4%; commerce, from 41.3 to 45.0%; personal services, from 48.0 to 50.2%. The most substantial changes have occurred in the *feminalization* of clerical and office work of government, community, business, and recreational services. The *greatest masculinization* has taken place in the proprietor, manager, administrative group. This is the reverse of the opinion that more females are taking over this type of work. Perhaps we tend to "overexpose" those females who are in the profession and hence we obtain the impression that there are more of them.

Underemployment, unemployment, and earnings among females

For those who belong to the labour force, the concern is not only to be paid well but to have a regular full-time job that they can depend on as a source of livelihood. Mijares and Tidalgo estimated the underemployment index from 1956 to 1968 for three broad industry groups: *agriculture; industries* (such as mining, manufacturing, construction, utilities, transport, storage, and communication); and *services* (which includes commerce;

government, community, business, and recreational services; domestic and personal services).

The following general trends have been observed (236): (1) *Underemployment for females is higher than for males* in all the three broad industry groups. (2) A higher level of full-time employment among females is evident in *services* and commerce, followed by *industries;* and the lowest level of full-time employment is in agriculture. (3) From 1956 to 1968, underemployment declined for the three broad industry groups. Even from 1972 to 1973, the same trend can be noted. Percentage of employed females working full-time in agriculture increased from 34.6 in 1972 to 44.4 in 1973; in manufacturing, the change was from 56.1 to 61.3%. However, in transport, storage, and communication, and in domestic and personal services, there has been some worsening of underemployment, especially in personal services.

Labour Force Survey data from 1968 to 1974 showed an improvement in the unemployment situation. For females, the unemployment rate dropped from 10.2 to 5.7% within 6 years. It must be noted, however, that for the country as a whole and for all the regions, the *unemployment rates are higher for females* than for males. The most agricultural regions for female employment are Region III (Cagayan Valley), 61.9%; followed by Region X (Southern Mindanao), 57.9%; Region II (Ilocos), 53.5%; and Region IX (Northern Mindanao), 44.3%. The three regions with the lowest proportion of the labour force engaged in agriculture, Region V (Southern Luzon), Region IV (Central Luzon), and Region I (Greater Manila), also have the highest unemployment rates for both sexes. Although underemployment in agriculture is greater than in industries and services for both males and females, the *underemployment among females in agriculture is more serious than for males.*

Related to the problem of unemployment is the effort exerted in looking for work. How much time do the unemployed spend in looking for a job? The data show a reduction in the average number of weeks spent by females in looking for work from about 10 weeks in 1968 to 5.2 weeks in 1974. The shortening of the job-hunting period has occurred for both experienced and new workers, agricultural and nonagricultural occupations, and for both sexes. However, in general, females spend less time than males in looking for work.

Besides being more underemployed and more unemployed than men, women also tend to earn less than men. Again, Labour Force Survey data from 1971 to 1974 reveal the following:

(1) Within each major industry or major occupation group, the average weekly cash earnings of full-time wage and salary workers in the government and for private employers were consistently lower for females than for males over a 3-year period.

(2) Both males and females working for private employers earned less than those working in government, except for the professional-technical and the administrative, executive and managerial workers where the trend was reversed.

(3) Of the major industry groups, women employees reported highest cash earnings from government, community, business and recreational services; followed by transport, storage, and communication; commerce; manufacturing; personal services other than domestic; agriculture; and the lowest cash earnings were reported by women in domestic service. The situation of women in domestic service deserves to be scrutinized very closely because they are almost always "live-in" household helpers; hence food, lodging, and other essentials are usually provided, but the quantity and quality depends very much on the "conscience" of the individual employer. If they are well provided for by the family they live with, the cash earnings actually represent net income. However, the "live-in" arrangement is a mixed blessing because household help is available for service on a 24-hour basis. This easy availability makes them vulnerable to abuse. Because domestic service is a major source of employment for young rural girls who move to the city, it is important to know more about what is happening with the females in this job.

(4) Of the major occupation groups employing females, administrative, executive, and managerial workers received the highest cash earnings (but there are too few females in this category); followed by the professional-technical workers; clerical workers; craftsmen-production process workers; farmers-farm labourers; and the lowest cash earnings were received by those in service work.

For the males, the administrative-managerial group also had the highest cash earnings; followed by the professional-technical group; then the clerical workers; sales workers; transport workers; craftsmen-production process workers; service workers; miners; manual workers; and the lowest cash earnings were received by farmers and farm labourers.

Comparing the bottom-level occupations for men and women, *service occupations were*

the lowest paid for females and farmers and farm labourers were the lowest paid among males. Because both these occupations have some noncash component, it is important to learn more about their working and living conditions. The lowest occupations for females will be the very lowest because females have less cash earnings than males.

It is worth reiterating here, from the Chapter on *Patterns of Employment and Sources of Income*, that wage and salary employment among women increased from 36.2% in 1962 to 45.9% in 1975. However, there are more unpaid family workers among females (31.6%) than males (18.5%). Almost 90% of all female unpaid family workers in 1975 are in the rural areas engaged in agricultural work. Only about 10% are in the urban sector employed as unpaid family sales workers.

The Filipino woman as a working wife

Although women make up only about one-third of the total labour force, within the female labour force, 47% are married (38% within the urban and 53% within the rural female labour force). There are, therefore, *more working wives in the rural than in the urban areas.* Because employment of women, even married women, is regarded by many as an essential component of female emancipation, it is necessary to examine relevant data on the subject.

Attitudes toward the working wife

Several studies conducted as early as 1961 dealt with attitudes toward the working wife. Castillo's study of high school seniors found that very few respondents considered the working wife completely unacceptable, although there were differences observed in this regard. The boys tended to be more restrictive than the girls. On the other hand, the girls reported a high degree of willingness to defer to husband's wishes. Neither the boys nor the girls believe in ignoring the husband's wishes. Another important observation is the importance attached to financial consideration as a justification for the wife's taking a job, although this was more pronounced among the females than the males (60). Guerrero's analysis of husband-wife roles among professionals in an academic community found that, although husbands' definition of the wife's "proper" role is mostly that of a wife and mother, the majority of them nevertheless approve of their wives working. The financial reason again seems to be a very important consideration. However, "if they had a choice," they would like their wives to stop working (158). In 1965, the International Research Associates conducted a poll of 2000 adults from five different Asian cities which asked the following question: "Some married women take up careers of their own outside the home. Is this a good idea or not a good idea?" The findings were: "Taking all survey areas as a whole, a majority 58 percent, favor the idea. The biggest favorable vote comes from Singapore where 70 percent of adults interviewed think that careers for women are a good idea. From Manila and Bangkok come general assent (58 percent in both cities followed by Tokyo, 55 percent). Younger people approve more often than older people and the lower classes more than the middle or upper classes. Taking all survey areas as a whole, men and women disagree only slightly on this issue, 60 percent approval from women, 56 percent approval from men. In Singapore and Bombay, such opposition as exists is expressed considerably more by men than by women" (185).

Surveys conducted in Laguna (1973) and La Union (1974) yielded the following answers to the same question: "Two men are talking. With whom do you agree? (1) I allow my wife to work outside the house and earn some money. (2) I prefer that my wife stay in the house and take care of the food and kids." Thirty-one percent from La Union and 44% from Laguna endorsed the first response, while 68 and 55%, respectively, chose the second response. These two studies showed a more conservative attitude toward the working wife. On the other hand, these same respondents reacted very unfavourably to the statement: "Once I heard a friend say that girls do not need to study as much as boys do. Girls will get married and will only stay at home and so their study is useless." Eighty-three percent of La Union and 77% of Laguna respondents disagreed with this statement. Apparently, they do not regard education for females as useless, even if they get married and stay at home (231, 247).

An April 1975 report of the Institute of Philippine Culture showed that 75% of the respondents who knew about working mothers approved of the idea. There was little difference by residence, sex, or income. However, college-educated people tended to look less favourably (68%) on the mother who takes an outside job than those with elementary schooling (79%). Of those who approved unconditionally of working mothers, 97% gave financial advantage as their reason. Despite the very positive evaluation of working mothers, it is interesting that when asked about the ideal job or what kind of job women

should do, 41% of all respondents favoured their staying at home, doing housework and related jobs; 17% favoured clerical or office work; 13%, handicrafts and other home industries; 9%, teaching; 8%, peddling; and only 2% each, thought farming or service (maids, waitresses) as the kind of work women should do. Furthermore, more high-income respondents mentioned the higher prestige occupations. As the authors concluded: "In general, the more sophisticated the respondent, the more likely he or she is desirous that the woman who works be well-placed" (276).

Based on the results of several studies cited, there is a favourable endorsement of the working wife, but the primacy of financial considerations in this judgment makes one suspect that, if it were not necessary and if one had a choice, the preference or the ideal situation especially for the husband is to have the wife stay at home. When one considers that many wives are employed in unglamorous jobs requiring hard physical work with low pay, such reasons as the desire to work for psychological fulfillment and professional achievement are not relevant. In fact, even among husband-wife professionals, the need for additional income was given as the most important reason for working. When asked if she would stop working if her husband asked her to, more wives said "Yes" than "No". Those wives who gave enjoyment of occupation as their reason were much less willing to stop than those who said they were working for additional income or for utilization of their education (64).

In another study of 81 home management technicians who work with the agricultural extension service, 48% of them think that, ideally, Filipino women should perform as full-time homemakers, but 27% rank working wife and 25% rank career woman as the "ideal" behaviour. In other words, more than one-half of them endorse the multiple role as their *ideal*. When asked about the actual roles, only 37% felt that Filipino women are carrying out the career role because of the demands imposed by children and the household. Among the problems mentioned as being inimical to their job performance are: insufficient time to take care of their families, areas of assignment are far from their homes, and worry about their families when they are at work. But in spite of these misgivings, only 6% of them said their families do not approve of their jobs. Again, the need for additional income was expressed as an important consideration (296).

Wife as breadwinner

Although the husband is traditionally defined as the breadwinner in the family, there are more married than unmarried females in the labour force. Table 104 indicates that the wife is a source of income for about 43% of Philippine households. There are proportionately more wives in the rural and farm households than in the urban and nonfarm families who contribute to household income. Greater Manila, which projects the image of a metropolis filled with busy working wives, is actually the region with the lowest proportion of households (33.7%) where wives contribute to family income and the highest percentage of households (53.6%) where the husband is the sole breadwinner. Cagayan Valley and Western Visayas are regions with the highest proportion of households with wives as a source of income. Ilocos (33.6%) and Bicol (31.4%) register the highest percentage of households where unmarried children are a source of income.

In nuclear families (Table 105), the *husband only* breadwinner is easily the most obvious pattern (41.9%), but further examination of the data shows that the more predominant pattern of earning family income is the multiple source, a combination of any of the following members (husband, wife, unmarried children, and other relatives). Only 5% of the households report a *wife only* source of income and only 7.7% of households sampled by the 1968 National Demographic Survey have a female household head. Although husbands are the major breadwinners in the family, the burden is shared in about as many families by the wife, and to some extent, by the unmarried children. It is significant to point out that, contrary to popular belief, the more affluent and urbanized regions like Manila and Southern Luzon have fewer households where the wife is a source of income. It is in the poorer and more rural regions where more wives play the breadwinner role, even if it is supplementary and contributory to husband's earnings. The households where the wife is the sole breadwinner are quite rare.

Main activity of married women

Because the official definition excludes from the labour force females who are housekeeping and because one refers to working wives as those who are gainfully employed, we have only a partial picture of what the rest of the wives do. Fortunately, the 1973 National Demographic Survey provides data on the *main activity* of married women and not just employment or occupational activity. The question asked in the survey was: "If you

consider your total time and activities, what do you spend most of your time on?" The categories of responses were: *working, housekeeping, studying, nothing,* and *others*. The responses to this question are presented in Table 106. An apparent inconsistency between the data from this table and the previous discussions will be noticed. As mentioned earlier, the labour force participation rate (LFPR) is higher for urban than for rural females, but there are more married females in the rural female labour force than in the urban female labour force. Furthermore, there are more rural and farm than urban and non-farm households where the wife is a source of income. However, Table 106 states that there are more married women in the rural than in the urban sector whose main activity is housekeeping. How does one reconcile these seeming contradictions? First, the higher LFPR of married rural women does not mean that working or employment is a main activity on their part. There are more urban than rural wives who are able to regard working as a main activity because the nature of their work and their place of work is such that it is distinct from housekeeping and it also occupies most of their time. On the other hand, rural wives who are working find themselves mostly in farm work, peddling, running a sari-sari-store, doing laundry, etc. which are forms of self-employment or unpaid family labour carried out intermittently, irregularly, and quite often, when the opportunities arise. This state of affairs, therefore, does not enable many rural wives to say that working is their main activity, although whatever they earn from these *ad hoc* activities contributes to family income. In other words, perhaps we can say that, although more rural wives participate in the labour force, they tend to participate on a part-time basis; whereas, urban wives are more likely to be fully employed and therefore more of them consider working as a *main* activity.

Table 106 indicates that only one-quarter of married women 15 years or over consider working as their main activity. Seventy percent regard themselves mainly as housekeeper. Furthermore, 80% indicate that their main activity takes place in the household. The image, therefore, of the Filipina who combines marriage, career, and children is far from being representative of the Filipino wife. It is interesting that the urban wives spend more days and more hours per day on their main activity than the rural wives, although more of the latter group report other activities besides the main activity. The most important observation of all (Table 107) is that whether the main activity is housekeeping or working, 57% of Filipino wives spend 29 days or more a month on it. About 50% devote more than 8 hours a day to the main activity. If we consider five working days a week, more than three-quarters of these wives are fully occupied both in terms of days per month and hours per day spent on the main activity. The wives who live in relative leisure make up about 20%. Incidentally, the urban, more than the rural wives, seem to be more fully occupied. Of the 10 regions, Cagayan Valley III has the "busiest" wives; followed by Southern Luzon IV; Bicol VI; and Southern Mindanao X. The least occupied seems to be Ilocos III and Eastern Visayas VIII, although the latter report the highest proportion of wives engaged in activities other than the main activity. *If we were to take the median, we can say that the Filipino wife spends a median of more than 29 days a month and 8 hours or more a day on her main activity.* The truly leisure class, who admit to doing nothing as a main activity, is less than 3% with Greater Manila I reporting 4.4%. For all the time spent on her main activity, more than 85% of the wives earned less than P1000 a year in cash and less than P500 in noncash in 1972. As expected the urban wives earned more than the rural ones and those in Greater Manila I had the highest earnings. The lowest earnings went to wives from Cagayan Valley III, although they spent the most time on their main activity.

Work patterns of married women

The 1973 National Demographic Survey showed that, although 40% of the wives had worked since they were married, only two-thirds of them were still working at the time of the survey. Wives stopped working for family-related reasons such as pregnancy, the need to spend more time with the family, and to satisfy husband's desire. In other words, the female paragon of wife, mother, and uninterrupted working woman, which is often depicted in the pages of women's magazines, is not a very common occurrence. One-third of the wives are in farming; more than 20% in sales work, and 20% in crafts and production processing. Less than 11.0% of working wives are in professional, technical, administrative, and managerial jobs. This represents only 2.7% of the total number of married women 15 years and older and dispels the *media image* of the Filipino wife as a versatile career woman, combined with marriage and motherhood.

There are regional differences in the nature of the jobs held by working wives, with Greater Manila having the highest proportion of wives in professional, technical,

administrative, and managerial jobs (20.6%). Ilocos Region and Cagayan Valley have the most farm workers (54.5%), followed by Eastern Visayas (46.2%), Southern Mindanao (44.9%), and Western Visayas (42.0%). Predictably, Greater Manila also has the highest proportion of wives who are wage and salary workers (61%). For the country as a whole, 42% of working wives are self-employed and 20% are unpaid family workers. The case of Cagayan Valley wives deserves more than passing mention because, as cited earlier, they are the ones most occupied in terms of days and hours spent on main activity but they receive the lowest earnings; have the highest proportion of unpaid family workers (46.0%); the highest percentage of wives engaged in farm work and away from home (77%); and the highest proportion working in family enterprise (62%). One can see that Cagayan Valley wives work hard for long hours as unpaid family workers on the farm.

Ways of coping with the multiple roles of the working wife

The possibility of hiring domestic helpers to perform chores for the wife has been frequently advanced as the rationale for the Filipino woman's ability to keep a job and run a household. In 1963, Castillo and Pua's study of 1662 households in four villages of Los Baños, Laguna, shows that only 129 (or 8%) employ domestic helpers. Of the 129 only one-half have working wives. This shows that about one-half of the wives in white-collar employment, about one-fifth of those in the proprietary-managerial category, and a very negligible number of the blue-collar and farming groups have hired domestic helpers. On the other hand, among husband-wife professionals studied by Guerrero, practically every household except the childless ones have one, two, or even three maids, and their presence seems to be a definite factor in the college-educated wife's ability to carry on her job. The maids are assigned the tasks of cooking, laundry, housecleaning, dishwashing, cleaning the yard, and helping take care of the children.

In order to find clues as to how other working wives manage in the absence of domestic helpers, other factors are investigated. Seventy-three percent of working wives in the Castillo-Pua study have neither maids nor relatives staying with them; whereas, 27% have other relatives and/or maids who help in the chores at home. The possibility that fewer children enable the 73% to carry on domestic and job responsibilities side-by-side without any extra help does not find support from these data. Furthermore, working wives as a category in this study have more children (4.04) than the full-time housewives who have an average of 3.83. The ages rather than the number of children seem to be of greater significance in the situation. Sixty-five percent of the working wives have their oldest child eleven years or older. Only 12% of the children are below 5 years. Three variables appear to be operating in these households of working wives without domestic help: (1) presence of older children who can assume some of the responsibilities which normally fall on the mother's shoulders; (b) some occupations engaged in by the housewives do not require daily absence from the house because the work can be carried out in their homes, for example, cooking, sewing, washing clothes, managing a store, hog or poultry raising, etc.; and (c) part-time jobs such as farm work which are seasonal and, therefore, do not require continued and regular absence from home. *Ad hoc* arrangements are often made for these occasions (61).

The 1973 National Demographic Survey shows that only 2% of total households have maids or resident domestic workers. Since there are many more households where wives work, it is obvious that domestic help is not the solution to the household chores of the majority of working wives. Considering also that about 25% of the urban female labour force is in domestic service, we can infer that the 2% of the households which have resident domestic helpers must have more than one per household and that these are upper middle and upper-class families only, some of whom will have working wives. Therefore, we cannot say that household help solves the problems of the majority of working wives. From a study (53) of the households of 115 married females employed as machine operators, telephone assemblers, clerks, and saleswomen, seventy of whom were daily wage earners, it is very clear that the bulk of the responsibility still falls on the shoulders of the working wife herself. Such things as budgeting, supervision of the home, housekeeping, marketing, supervision of children, laundry, and cooking are still largely done by the wife. Some of them get help from their mothers, some from the maid, and some from other children. Other tasks are carried out jointly. In this study, the majority of the children are taken care of at home, but some are taken to the homes of their grandparents or other relatives. When asked what prevents women workers from carrying out both activities as wage-earners and housekeepers, the obstacles mentioned were: Being forced to go on leave if a family member gets sick; there is no time for thorough housekeeping and attending fully to family needs and to the children. It is obvious that extended

family arrangements help solve some of the household problems faced by the working wife.

As cited in the Chapter on *Family and Household*, children taking care of other children or children taking care of themselves is a common practice in households of working wives. The problems associated with such arrangements are recognized by the wives who feel that their children are neglected, do not receive proper care, and that their discipline is disrupted.

Education, vocational training, and media exposure of married females

Since the majority of wives stay at home, it would be useful to know how much information would be meaningful to them and what channels should be used. As of 1973, the average wife has about 5 years of schooling and almost 80% are literate. Less than one-third use Tagalog at home, although one-half of the urban wives are conversant in this dialect. Less than 16% of the rural populace are Tagalog-speaking. For more than 70% a non-Tagalog audience such as Cebuano, Ilocano, Ilongo, Bicol, Waray, should be considered. Only 0.1% of the wives are English-speaking; only 2.3% of all wives have vocational training, but the few who have it trained for an average of 11 months. In terms of media exposure, the 1968 National Demographic Survey found that more than 50% of the wives seldom or never read the newspaper, not even magazines or comics. Eighty-one percent seldom or never watch television. Movie attendance is more frequent than TV viewing, although the proportion who go to movies is only 20%. The radio gives greatest media exposure; wives listen to it much more than husbands. Therefore, the greatest potential and challenge for reaching stay-at-home housewives is the creative use of radio, taking into account that the average housewife has only 5 years of schooling. Television messages, no matter how effective, reach only a very small sector of Filipino wives and most probably only the better-off households.

The Filipino woman as a citizen

The Filipino woman's participation in activities outside home and family is a subject that is very salient at the moment because of the desire to see women more actively involved in national development programs.

Participation in politics

The Filipino female has been active at the polls. As Cortes points out: Of the 11 elections from 1953 to 1971, the percentage of qualified electors who voted was consistently higher for women than for men by about 1%. However, she also observed that since the plebiscite of 30 April, 1937, when about 500 000 women cast their vote on the right of suffrage, there has been no identifiable women's vote in the Philippines. The number of voters rose from 5 603 231 in 1953 to 9 962 345 in 1965 to 11 661 900 in 1971. The percentage of registered female voters rose from 40.65% in 1953 to 46.51 in 1971. Although the female turn-out for voting is encouraging, the statistics on female elected officials shows that there are very few women who occupy these positions. However, there were more of them in 1971 than in 1953 and there were also more women among the lower positions (such as Municipal Councilors, Vice-Mayors, and Mayors) than the higher ones (such as Governor, Congressman, or Senator) (98, p. 1, 10).

Participation in formal organizations

A 1969 report on labour organization revealed that only 12 out of 26 federations and 21 out of 199 affiliated unions had female members. Only 13% of the total membership was female. Among the 113 independent labour unions, a little over one-half of them had female members who made up more than 20% of the total membership. Because there are many more male than female workers, on the whole, perhaps the extent of female participation in labour unions is about as much as can be expected (53, p. 38).

Inch-for-inch and column-for-column of news item and feature writing, professional women have occupied the limelight. The Civic Assembly of Women of the Philippines (CAWP) has 67 affiliated organizations. It has chapters in eight provinces, eleven cities and three municipalities. All these organizations are either associations of professional women, church-affiliated, or international organizations, most of which are based in urban areas (53, p. 47-53).

For a village-based type of organization whose membership is mostly agricultural and rural, female participation in the Samahang Nayon (a precooperative association at the barrio level), which is part of the nationwide cooperatives development strategy, is examined. Of the 10 538 Samahang Nayons, with 472 569 members, only 10.4% are females.

Of the 52 690 officers, only 5.4% are women. However, data on the positions that women hold in these Samahang Nayons can have wider implications because almost one-half of the female officers are Secretary-Treasurers, about 18% are auditors, and 12% are managers. One wonders whether the reason for choosing them for these positions arises from greater trust in their honesty and ability to handle the financial aspects of the organization. One can also ask whether Samahang Nayons with female officers, especially in financially sensitive positions, are likely to have better financial management, other things being equal?

The ten provinces with the highest proportion of female membership are: Aklan, 37.8%; Cebu, 32.7%; Guimaras, 29.0%; Antique, 26.4%; Mt Province, 22.4%; Siquijor, 21.5%; Bohol, 21.4%; Negros Oriental, 19.6%; Ifugao, 19.4%, and Benguet, 19.2%. These provinces are Western and Eastern Visayas plus minority group provinces in the north (238). Whey they have more female members than other provinces is a question which deserves to be pursued and an analysis of their performance would give some clues on the role of women in village-level organizations such as the Samahang Nayon.

Participation in church activities

The 1973 National Demographic Survey shows that 83% of married females 15 years and over are Catholics. There are more Catholics among the urban (86.2%) than the rural wives (81.4%). The most Catholic of all regions is Bicol (96%); followed by Eastern Visayas (91%); Western Visayas (88%); and Greater Manila (88%). The highest proportion of non-Catholic wives are in Ilocos (64%) and Northern and Southern Mindanao, 70 and 69%. There are slightly more wives (20.6%) than husbands (15.5%) who have had a Catholic education at some time between pre-school and college. If attendance at religious services is an indication of religiosity, rural wives are less religious (38.7% had not attended any religious service in the month preceding interview) than urban wives (23.4% nonattendance). The most religious wives would be in Greater Manila, followed by Eastern Visayas. The median number of times a wife attends religious services would be slightly over once a month. More than 30% of urban wives attended religious services four times or more a month; whereas, only 12% of the rural wives did so. In general, church attendance does not seem to be "religiously" paid attention to by Filipino wives and rural wives are even less "religious" than their city counterparts.

The Filipino woman as a female

International Women's Year of 1975 brought forth such concepts as equality, liberation, emancipation, employment, and independence for women. There was also a call for greater involvement and integration of women in development. Since the operational definitions of these "ideals" have so far been unspecified, it is difficult to assess how the Filipino woman stands with respect to these "ideals". Nevertheless, the following are explored: her status at home; Filipinos' attitudes toward working women; and their perceptions of and attitudes toward male-female roles and their assessments of equality between the sexes.

The Filipino woman's status at home

In most Filipino homes, the general pattern of task allocation is for the husband to be occupied with income-earning activities and the wife to be primarily engaged in housework. As a recent national study reports (27): Eighty-four percent of the wives do the cooking; 62%, the washing; 71%, the house cleaning; 78%, the clothes washing; and 79% look after the children. For almost one-fifth of the households, relatives help in the chores. Domestic servants are available only in 4% of the 1270 households studied. Wives who are employed spend less time doing housework than those who are not. Furthermore, as wife's income as percentage of household income rises, as women grow older, and as years of marriage increase, women tend to spend less time in housework. The same trend was observed for women with high education and whose husbands also have high education. Wives in higher income levels do less housework and employ more servants. That husbands share in the household tasks is evident by the fact that 35% help regularly; 61% help under special circumstances; and only 4% do not help at all. Husbands help mostly in looking after children, cooking, washing clothes and dishes, and in cleaning the house. They tend to share more in the household tasks when wives are employed.

The same study attempts to qualify findings of other Philippine studies regarding the egalitarian and joint-with-husband pattern of decision-making. It points out that, although 92% of the wives hold the money in the house, only 16% of wives make the decision to purchase such items as appliances and furniture, and 39% of husbands decide the matter alone. In 45% of the homes, husbands and wives decide jointly. A similar trend

is apparent in business and investment decisions. Although being family treasurer does not confer on the wife the sole right to dispose of the household money, there is no question that *joint* rather than *husband-only* decisions are the predominant pattern. Furthermore, even if husbands make more decisions regarding purchase of appliances and business investments, their wives are consulted when they make decisions. Only 6% of the wives are not consulted. Bautista points out quite aptly that "keeping the money is a source of status only when it is accompanied by the power to make important decisions on money-related matters." Because her data on purchase of appliances and business investments revealed more husband-only than wife-only decisions, although the predominant pattern is joint rather than either husband- or wife-only decisions, the inference was that the wife has lower status. All the previous studies on household decision-making which were cited in the Chapter on *Family and Household Structure* cover several areas of decision-making and, in all of them, the area of household expenses including food, clothing, etc. was the wife's major domain. Since 70-80% of the family's budget goes to household expenditures in the majority of families, it cannot be said that the wife has no power over money-related matters. There are indications from several studies that "knowledgeability or expertise" affects the decision-making pattern, so that farmers exercise more influence in farm-related decisions although wives participate and are consulted. In the case of business investments, which is an income-generating venture, husbands probably have more "expertise." The same may be the case with purchase of appliances. Undoubtedly, the wife who manages the household has greater "expertise" in household expenses and, therefore, this area becomes her major domain in decision-making. The larger issue that should be raised in the light of all these observations is whether the woman's participation in decision-making and her being consulted is *ceremonial* or *substantive*. Where she has expertise, we would expect her role to be substantive; where she is "naive", perhaps her participation is ceremonial. An additional clue to the possible existence of these two types of participation in decision-making is Bautista's finding that wives who are employed have a significant effect on decision to purchase appliances. Education also has a positive effect. Since consultation with the wife is an established practice, the more important issue in enhancing her status and role in the home is to determine the nature of her participation in decision-making. In areas where her involvement is merely ceremonial, the challenge is to provide her opportunities to acquire skills and knowledge so that her participation can be more substantive.

Two other indicators used in the Bautista study to assess relative power of the husband are: winning disagreements and wives' need to ask permission from their husbands. She found that, among married couples interviewed, 63% of the husbands mostly win disagreements and only 24% of wives. In 13%, both husband and wife win equally. The majority of Filipino wives need to ask their husbands' permission for such things as buying clothes, going out with friends, and lending money to relatives. Because husbands were not asked whether they ask permission from their wives, it is not possible to conclude on the basis of one-sided data that women have a lower status. Furthermore, when a wife asks permission from her husband, is she merely *informing* him or is she under her *husband's control* for *monitoring* of her behaviour? Since the wife holds the money, it is difficult to imagine the husband buying clothes, lending money to relatives, or even going out with friends, without the wife being at least informed or consulted. How else will he obtain the money? Just as greater participation in decision-making and more freedom from asking husband's permission in doing things is associated with wife's employment, income, and educational attainment, it would be expected that husbands who have additional earnings or "sidelines" outside of income known to the wife would also have greater freedom to spend money without consulting their wives. But it is hard to dismiss the notion that wives who hold the money have greater power over money-related matters than those who do not have such a role. In some societies, the role of wife as treasurer is not as prevalent as it is in the Philippines. Although Filipino wives seldom win disagreements and need their husband's permission for their activities, they are not without recourse in getting what they want. Indirect means to have their way are resorted to such as: withdrawing their care, crying and sulking, going home to their parents, inflicting punishment on themselves, and persuasion.

Evidence from this, as well as from many other previously cited studies, reveals that the husband is the acknowledged head of the family but that the wife has "institutionalized power" as treasurer and indirect power as a wife-partner in a marital relationship. The *jointness* and *mutual consultation in decision-making* leads us to conclude that the Filipino wife is *neither subservient* nor the female *leader of a "henpecked" husband*. In many ways she "walks a tight rope" in the exercise of her role as a *wife-partner*. To

be a slave to her husband is regarded as "kaawa-awa" (a pity), but to have a henpecked husband is to relegate him to the "misfortune" of the USA'S *under the saya ng asawa* (under the wife's skirt). Neither one is socially admired in one's community.

Judging from their description of their marriage, Filipino wives appear to be satisfied. Twenty-one percent said they were very happy; 37%, a little happier than average; 39%, just about average; and only 3% were not too happy. The most important problem facing the majority of wives is *financial* and centres on household expenses. Other problems are husbands being away from home, disciplining children, and irritating personal habits. Bautista notes that the Filipino wife's marital happiness does not seem to be a function of her power in the home and the time spent doing housework. Although there is some evidence of lower status in certain areas of family life, she appears to be generally satisfied with her marriage. Being able to share in the decision-making, having an upperhand in certain areas, having indirect power to get what she wants, and an acceptance of her homemaker role perhaps combine to make for marital happiness.

Attitudes toward working women

In a country where the female is almost at par with the male in educational opportunities and attainment and where she shares as a partner in the household, it is surprising that only one-third of the labour force is female. It is precisely in this aspect of Filipino life that the male-female disparity or sexual role differentiation seems to be most pronounced. Although there are many possible explanations for female labour force participation, one factor which affects it is the social-cultural definition of what is desirable for a woman, as reflected for example in Filipinos' attitudes toward working women. Table 108 provides recent evidence that the majority of both males and females endorse the traditional roles for women: marriage is a must; child-bearing as a fulfillment of womanhood, and homemaking as a wife's major task in life. That a man should not allow his wife to work, if he can afford it, is still very much approved. The preference for the man rather than the woman to work is also expressed if both are equally qualified. Predictably, however, there is a greater endorsement of the traditional roles for women from male than from female respondents. There are some inroads into these traditional sex role definitions, as indicated by almost one-half of the respondents from both sexes who think that people should not think less of a man if his wife works. There is also some degree of agreement with the statement that "a mother working outside the home has a good effect on her children." In other words, there is no major condemnation of the "evil" effects on children resulting from working mothers.

Attitudes toward male-female roles and assessments of equality between sexes

Further explorations into Filipinos' perceptions of sex roles and male-female equality are made possible by data presented in Table 109, which compares husband-wife responses with value statements regarding male-female roles. The following inferences can be made from the pattern of responses. The value statements which found the most endorsement and greatest agreement between husband and wife are: (1) The husband should have the most say in family matters; (2) the most important qualities of a real man are determination and driving ambition; (3) if a man can afford it, he should not allow his wife to work; (4) in choosing a husband, a woman will do well to put ambition at the top of her list of desirable qualities; and (5) women should take an active interest in politics as well as in their families.

These responses establish quite clearly the norm of husband as *padre de familia* or head of the household. Because of this role definition, driving ambition and determination are regarded as the most important qualities of a husband. The value on "wife is for the home" is quite strong, with the implication that financial need is the main reason for the wife to work. That this is, in fact, the chief justification for taking a job is borne out by the 1976 Philippine Social Science Council study which reported that 91% of working wives gave economic considerations (to earn money for a living; to supplement husband's income; to help parents and relatives; to be able to send children to school; and to add to family savings) as their main reason for working. Only 5% mentioned desire to practice their profession; to use their training; to avoid boredom; and for self-satisfaction in being busy.

A man is expected to be the family provider and, if he does not do that well, he ought to consider himself a failure as husband and father. (More than 70% of husbands and wives feel this way.) However, although the "ideal" is for the wife to stay at home, 45% of wives and 41% of husbands feel that people should not think less of a man if his wife works. It appears that the *ideal* is an "ideal" which, if it fails to materialize,

is not actually condemned by the majority, but their disapproval remains evident. This is further reinforced by two-thirds of both husbands and wives who agree that almost any woman is better-off in the home than in any job or profession. In other words, it is not only the man but also the woman who defines the wife's role as that of staying at home. More than 70% of both groups agree that "a married woman cannot make long-range plans for her job because it depends on her husband's plans." The primacy of the husband, even when the wife has a job, is again manifested in this statement. "Woman is for the home" refers mainly to not taking a job because almost three-quarters of both groups think that "women should take an active interest in politics and in community problems as well as in their families." We can therefore, say that ideally the Filipino woman is expected to stay at home and take care of her family, but this does not mean that home should be her only concern. An active interest in politics and community problems is expected as well.

These husband-breadwinner and wife-for-the-home role definitions find further confirmation from the PSSC National Survey on the Status and Role of Women in the Philippines. When more than 1800 respondents were asked what are the advantages of being a woman, the most frequently mentioned were: She is expected to stay at home and care for home and family; she does not do hard work; she is not employed as a labourer; she is well-treated, respected and placed on a pedestal. Being fragile and physically weak, she easily gains sympathy, more attention, and more help from other people; women are necessary companions of men. These perceptions of a woman's advantage would be perplexing to female "libbers" who consider precisely such state of affairs as the existing social disadvantages of being a woman. On the advantages of being a man, the most frequently mentioned were: He earns the bread; he is the source of financial support and the head of the family; he is physically equipped to do a lot of things; he has few restrictions to do what he wants; he can easily get a job; he is preferred in most jobs. The breadwinner role is, therefore, perceived as a man's advantage in life.

The double standard of morality is still a prevailing norm as revealed in high endorsements of two value statements: (1) It is a woman's job more than a man's to uphold our moral code, especially in sexual matters. (2) The unmarried mother is morally a greater failure than the unmarried father. It is interesting, however, that the statement: "A man should not be expected to have respect for a woman if they have sexual relations before they are married" is not endorsed by 60% of the husbands and 55% of the wives. Apparently, the fact that they got married afterwards makes premarital sex forgivable. But in these three statements relating to morality, wives are more disapproving of the woman's behaviour than the husband's. Wives, however, are much more reprehending of husband's infidelity. Eighty-seven percent of them and only 76% of husbands think that "infidelity is the worst fault a husband could have." This high degree of condemnation of infidelity suggests that faithfulness to one's spouse is highly valued.

Side by side with the traditionality of sex roles, as defined by both husband and wife, are three value statements which suggest that some changes in sex role perceptions might be forthcoming. About one-quarter of the husbands and one-third of the wives do not agree that "women think less clearly than men and are more emotional." As expected, more husbands than wives still hold this view. A similar trend occurs for the statement: "It is somehow unnatural to place women in positions of authority over men." Forty percent of the husbands and 35% of the wives disagree with this, but the fact that only one-half of both respondents still cling to the notion of male superiority indicates the growing acceptance of women in positions of authority over men. Finally, more than 60% of both respondents agree that "even today women live under unfair restrictions that ought to be done away with." All these appear to be small indications that traditional sex role definitions are being reexamined.

Further evidence in this direction is provided by the 1976 PSSC survey which found that two-thirds of the respondents think that the position of Filipino women needs improvement. When asked what could be done to accomplish this, the replies centred mostly on increasing job opportunities for women and giving them more education and skills. Others mentioned increased participation in community activities and the need to have high morals. Among the one-third who said that the position of the Filipino woman does not need any improvement, 60% feel that their present status is good; men and women are already equal. About 20% feel that the role of the woman should be in the home and the husband should be the breadwinner. More than 10% think that equality is not proper and women can never be equal to men.

When all the respondents were asked whether men or women are generally treated better in our society, more than one-half said they are treated equally; a third mentioned

that men are treated better; 13% said women are treated better. This means that two-thirds do not perceive any sex inequality in treatment. To the question: "Whom did your parents expect to get more education - sons or daughters?" 38% said sons more; 47%, equal; and 15%, daughters more. This perception, however, is not supported by the facts because there is higher female than male enrolment in our colleges and universities. The career aspirations of women are very pronounced, as revealed in answers to the question: "When you were 16, what did you want to become?" Seventy percent dreamed of having college education and being a professional; only 3% dreamed of getting married, having a family and keeping house; 10% had no ambition at 16. This pattern of response is contradictory to the well-defined bias in favour of "woman is for the house." Perhaps at 16, marriage and family are still distant. But when one actually gets married, the family and the home takes precedence over career aspirations.

Illo's study confirms this in her report that *marital harmony is a woman's primary concern* and has a strong effect on her overall happiness. Other important concerns of women pertain to housing and household possessions; social services or benefits; their own education; job and income; and the health condition of the family. All of these pre-occupations are directly related to the woman's function as a homemaker responsible for the family's welfare. Since most women studied were engaged in unglamorous occupations, such as farm work (usually as unpaid family worker), petty trading, or a clerical job, one can presume that they have a low level of education. Illo thinks that education is perceived as a problem because it is viewed as a means to well-paying employment opportunities which require specific types of education. Apparently their life satisfaction would be enhanced if they were given a chance to obtain work in better-paying enterprises. But as Illo warns: "experts should be careful not to draft purely-for-women employment policies. Inasmuch as the employment of women, given unchanged socio-economic structure, could pose a threat to currently unemployed males, the preferred strategy should allow for the creation of opportunities for both women and men. This will contribute to the evolution of more favorable opinions and attitudes toward working mothers. Since the changing roles and status of married women will surely create new sets of relationships and expectations, the focus of development programs should fall equally on women and men. Since uppermost in the minds of married women is domestic peace, any move that disturbs this will achieve less success than will an activity that reinforces the tranquility of the home. The need to re-orient men as well as women on the positive aspects of broadening women's (and therefore the family's) options is imperative if domestic harmony is to prevail in the face of change."

SUMMARY AND CONCLUSIONS

The Filipino woman is a creature of many images emerging from historical accounts and projections by Metropolitan newspapers and magazines. These media-generated images yield a confusing picture of the Filipina who is simultaneously exalted, subservient, emancipated, and romantically feminine. To move away from imagery, this Chapter examines empirically the Filipino woman in half a dozen aspects of her life: as a matrimonial risk taker; as a child-bearer; as a member of the labour force; as a working wife; as a citizen; and as a female.

As a matrimonial risk taker

As of 1975 there are 20.8 million Filipino women, two-thirds of whom live in the rural areas. The average woman is younger than the city girl and females are older than males. On the whole, females also live 4 years longer than males.

The Filipina is marrying later now than in the past and the urban female marries even later than her rural counterpart. However, brides are still younger than grooms. Despite delay in marriage, matrimony has not become out-dated, for marrying later does not mean not marrying at all. However, there are significant rural-urban and regional differences in age of marriage and total proportion of women marrying. Compared with other countries, Filipino women tend to marry later than all other Asian females, except for the Japanese.

Whether in occupational background or educational attainment, more wives than husbands marry upward, but urban wives have more opportunities than rural wives to marry

husbands of higher occupational background. The majority of weddings are still solemnized in church, but consensual unions and living together in marriage occur more frequently than is thought. The pattern of one-man-one-marriage, sharing a home until death intervenes, is still very much the pattern for Filipino women. Widowers tend to remarry more than widows, but the incidence of step-mother step-child living together in the same household is quite rare. Although age of marriage has been delayed, life expectancy has more than doubled; hence, the duration of marriage with both spouses alive has also increased. Because women live longer than men, the period of widowhood has also been lengthened.

As a child-bearer

Considering age at marriage, the average Filipina has about 20 years of reproductive life with one baby at 3-year intervals. More children tend to be born to women who live in rural areas and agricultural communities; who marry earlier; who are not employed outside the home; or who live in nuclear households. Regional variations in fertility have been observed, with Greater Manila manifesting the fewest children. A decline in completed family size is clearly indicated from an average of 6.46 in 1958-62 to 5.89 in 1968-72. In general, the number preferred by wives is less than the actual completed family size, but *childlessness* and *only* children are not preferred at all. Few of the wives have never been pregnant, and fewer rural than urban wives. Those who bear children tend to breastfeed except for "meritorious" reasons. Perhaps Filipino women have a concept of *feminismo* which is the equivalent of *machismo* for men. To be barren violates the ideal and the norm of a woman's major purpose in life. Pregnancy establishes fecundity for both husband and wife. It satisfies both *machismo* and *feminismo*. The latter is not the same as the *feminism* of Western developed countries. In the Philippines, *feminismo* is the *pursuit of femininity*.

In bringing children into the world, *hilots* (the traditional midwives) play a more important role than doctors, nurses, and licensed midwives, and their role is increasing. Despite this, maternal mortality rate has decreased during the period from 1960 to 1971.

Filipino women, particularly low-income ones, make a considerable sacrifice in their child-bearing role because the effect of malnutrition is most acute when women are pregnant or lactating. Fetal or infant and toddler mortalities also increase with the poor nutritional status of the mother. Experience with nutrition education programs has shown that low-income malnourished mothers are also preoccupied with livelihood activities and household chores which usually have priority in their time allocation.

As a member of the labour force

Because education is an important determiner of employment, the education of our women is of concern. For the country on the whole, Filipino females are almost at par with males in school attendance, literacy, and educational attainment. What is more significant are the regional and rural-urban disparities among females, as well as among males. School enrolment at all levels of education shows no disadvantage on the part of females. At the college and graduate levels, there are more females than males and there is an increasing "femalization" of school graduates at different levels. In nearly all college courses, the percentage of female enrolment has increased, including medicine, architecture, agriculture, etc. All the data analyzed lead to the generalization that, among males, level of education is not as strong a determiner of labour force participation as it is among females. College education is a very important variable, not only in dramatically increasing female work participation rates, but also in lengthening gross years of active life. The positive effect of college education continues despite marriage. Apparently, once a woman obtains a college degree, she is committed to a career until retirement, regardless of marital status.

Among Filipino females 10 years old and over, only one-third are in the labour force and almost one-half are classified as *housekeepers*. This is the most significant major activity of women in the Philippines. More village women than city girls spend their time in housekeeping. Conversely, urban females have a higher labour force participation rate than rural females. Employment patterns for these two groups of women are also different. Urban women are employed mostly in commerce (sales work, market vendors, peddlers, street and sidewalk vendors); domestic service; government, community business and recreational services (teaching, clerical and office work); and manufacturing. For rural women, the majority are in agriculture; some are in manufacturing (basket weavers, sewers and embroiderers, etc.); and others are in commerce (sari-sari store owners, market vendors, and salesgirls). More than three-quarters of those in agriculture are employed

in rice and corn farming.

Contrary to popular impression, instead of a reduction in the percentage of labour force engaged in farming, there has been an upward trend for females in farm work from 1965 to 1974.

The "glamour" professions such as physicians, lawyers, architects, professors, deans, etc. and the administrative, executive and managerial workers make up a small portion of urban employed women. The females, therefore, who often grace the pages of our Metropolitan media, are a small group. Using proportion of females employed in each major occupational or industry group, the most female occupations are *domestic service; professional* and *technical;* and *saleswork*. Occupations which require manual and physical exertion are almost exclusively male. Over a 9-year period, the following occupational groups became more female: professional-technical; clerical and office work; and government, community business, and recreational services. The most substantial changes have occurred in the femalization of the latter two occupational groups. The most predominant of all employed female college graduates are the school teachers who are the lowest-paid of all professionals. Teaching, however, has become very unattractive as shown by the substantial decline in enrolment in teacher-training.

Unemployment rate has dropped for both sexes, but unemployment and underemployment rates are higher for females than for males, with agriculture showing the highest underemployment. Time spent looking for work has declined and females spent less time than males in looking for work. For every major occupation or industry, women tend to earn less than men. The *lowest cash earnings* for females were received by *domestic service workers*. However, almost 90% of all female unpaid family workers are in the rural areas engaged in agricultural work. In general, there are more unpaid family workers among females than males.

As a working wife

Although women make up only one-third of the labour force, almost one-half of those who are part of the labour force are married, with more working wives in the rural than in the urban areas. Based on the results of several studies reviewed, there is a favourable endorsement of the working wife, but the primacy of financial considerations in this judgment makes one suspect that, if it were not necessary and if one had a choice, the preference or the "ideal" situation especially for the husband is to have the wife stay at home. Contrary to the media image, the more affluent and urbanized areas like Manila and Southern Luzon have fewer households where the wife is a source of income. It is in the poorer and more rural regions where wives play the breadwinner role, even if it is supplementary and contributory to husband's earnings. Seventy percent of Filipino wives regard themselves mainly as *housekeepers* and their main activity takes place in the household. The average Filipino wife spends more than 29 days a month and 8 hours or more a day on her main activity. Only about two-thirds of wives working before marriage continued working after marriage. Family-related considerations were given as reasons for leaving their jobs. The female paragon, therefore, of wife, mother, and uninterrupted working woman is not a very common occurrence. The professional, who pursues a career despite marriage and motherhood, is less than 3% of total married women. Since only 2% of Filipino households have domestic helpers, household help is not the solution to the problem of the majority of working wives. Ways of coping with the multiple roles of working wife are: extended family arrangements; help from the husband, relatives, and children in taking care of young children and in doing household chores. The average wife has 5 years of schooling and less than 3% have had any vocational training. Except for the radio, she has little exposure to mass media. The majority of housewives are non-Tagalog speaking.

As a citizen

The Filipino female has been active at the polls. Of 11 elections, the percentage of qualified electors who voted was consistently higher for women than for men, but there are still very few women in political positions, especially at the higher levels. The extent of female participation in labour unions is probably a reflection of the proportion of women workers found in establishments with labour unions. The most well-known women's organizations are those which belong to the Civic Assembly of Women of the Philippines, but these are mainly professional women in urban areas. The *Samahang Nayons* have less than 6% female membership, but the officers among these women members are mostly treasurers and auditors.

In general, church attendance does not seem to be "religiously" paid attention to by Filipino wives and rural wives are even less "religious" than their city counterparts.

As a female

International Women's Year of 1975 brought forth such concepts as equality, liberation, emancipation, and independence for women. Studies of attitudes toward male-female roles and Filipinos' assessment of equality between the sexes establish quite clearly the norm of husband as family provider and the wife as "for the home." Financial need is perceived as the chief justification for a wife's taking a job. What is interesting is the finding that not only the man but also the woman defines the wife's role as that of staying at home. Although "ideally" the Filipino woman is expected to stay at home to take care of her family, this does not mean that home should be her only concern. An active interest in politics and community problems is expected as well.

The husband-breadwinner and wife-for-the home role definitions are further confirmed in what Filipinos regard as the advantages of being a man or a woman. The most frequently mentioned advantages of being a woman are her home and family role and the fact that she does not do hard physical work. Such perceptions of a woman's advantages would be perplexing to female "libbers" who consider precisely such state of affairs as the existing social disadvantages of being a woman. For men, the breadwinner-role and their physical ability are perceived as men's advantages in life. The double standard of morality is still a prevailing norm which is endorsed by both sexes. Infidelity is highly condemned. Despite the largely traditional definition of sex roles, there are indications that some changes might be forthcoming. There is a growing acceptance of the notion that women can be placed in positions of authority over men. Furthermore, the majority of both sexes agree that women today live under unfair restrictions that ought to be done away with. They also think that the position of Filipino women needs improvement through better job opportunities, more education and skills. These statements, however, do not necessarily refer to female disadvantages relative to the male. They seem to refer more to socio-economic rather than to male-female inequalities as evidenced by the fact that two-thirds of respondents studied do not perceive any sex inequality in treatment. Some of them think that women are treated better. The precedence of family and home in a woman's life is reinforced by the finding that *marital harmony (domestic place) is a woman's primary concern* and has a serious effect on her overall happiness. All her preoccupations are directly related to her functions as a homemaker responsible for the family's welfare. The jointness and mutual consultation in household decision-making which is evidenced in many studies leads us to conclude that the husband is the acknowledged head of the family, but the wife has *institutionalized power* as treasurer and *indirect power* as a wife-partner in a marital relationship. It is intriguing, however, to determine whether the consultation with the wife is *ceremonial* or *substantive* and what makes for more substantive consultations between husband and wife. Notwithstanding these questions, the Filipino wife is neither subservient nor is she the female leader of a henpecked husband. Judging from the description of their own marriage, the wives appear to be quite satisfied. Very few regard their marital situation as not too happy, and this suggests that their present roles in marriage are well accepted.

CHAPTER VII

RURAL YOUTH: THE FACE OF THE FUTURE

There was a time when youth was romantically looked upon as the "Fair Hope of our Fatherland" until the population explosion came and made them the "problem and the dependency burden of today." Because half of our population are below 15, the Philippines is a country faced with problems of the young, at a time when most developed countries have to contend with a growing proportion of senior citizens. From the Metropolitan dailies, television, movies, and radio, we could conclude that the Philippine youth problem is one of drug addiction, juvenile delinquency, educated unemployment, and leftist inclinations. But this is an urban Metropolitan Manila perspective. If we were to wander away from the city boundaries and into the "sleepy" villages of the countryside, our perspective on what constitutes a major national youth problem might change.

Rural youths seldom, if ever, make the headlines, for they are not as dramatic as the pictures of city urchins - a sea of faces, a gang of tough youngsters concentrated in a few hundred square metres of slum and squatter areas in our urban centres. In contrast, the millions of youths in the villages are not physically visible because they are scattered along the countryside, coming together in great numbers only during fiestas and other significant happenings. But, because of their numbers, it is time that these rural youngsters were seriously noticed. Their present state will influence their future, which in many ways will shape our country's tomorrow. In the urgency of urban overcrowding and with our burning desire to clear the slums, we tend to forget that the city urchin of today was once a barrio lad, or at least his parents were.

In this chapter, the situation of rural youths and the realities of their existence are described under the following headings: (1) Some socially significant statistics on Filipino youths; (2) children's and parents' aspirations, expectations, perceptions, and exposure to the outside world; (3) educational schemes for rural youths; and (4) the related issues of education, training, employment, and migration.

Some socially significant statistics on Filipino youths

One of the most important facts about our youths is their numbers. As of 1970, there were estimated to be about 8 million youths 10 to 19 years old. We have chosen to focus on this age group because they are no longer children and are not quite adults. School drop-outs start to increase from Grade IV (or age 10) and they begin to join the labour force. However, they are not yet at the marrying age. Table 110 shows: (1) More than two-thirds of these youths are in the rural areas. About 54% of urban youths and 49.5% of rural youths are female. In total, 66% of females and 70% of males 10-19 years old are rural. (2) In general, more of the urban (19.9%) than of the rural (13.9%) are in school but more of the rural (27.5%) than of the urban (18.1%) are employed. Among rural youths employed, males are twice (36.6%) as many as females (18.1%). Among the employed rural youths, *65% are unpaid family workers*. (3) More than one-third (34.4%) of rural females are engaged in housekeeping, but only 26.4% of urban females are similarly occupied. The Census definition of *housekeeper* is a person who does housekeeping chores in one's house such as cooking, cleaning the house, and laundering for family members of the household. As expected, the proportion of male youths classifed as housekeepers is only a little more than 6%. This is a reflection of the sex role definitions which predominate in our society. (4) What is seldom recognized is the sizeable portion of our youths who belong to the category *"others"* (40.7% of the urban and 34.4% of the rural youths). *"Others"* include those who are voluntarily idle; who are unable to work; or those working without pay but not on a family farm or enterprise such as volunteer workers or persons doing such work as painting the house, fencing the yard in their own homes. In other words, the category *"others"* is really a *twilight zone* where the individual is not in school, is not employed, and is not really doing much. As a matter of fact, they are often said to be *doing nothing* except to be of some marginal utility to the household. A substantial portion of

our youths, therefore, are almost literally *in limbo*. In this state and at this age level, they are a heavy dependency burden and the challenge they pose to family and community for creative development, mobilization, and utilization so that their future may be more promising is indeed a formidable one. There are usually two general approaches to this problem: schooling or employment. It is not that there is nothing constructive or productive to do in the countryside or in the city, but how do we organize, mobilize, and motivate this latent labour force into an actual work force so that they will be substantially absorbed in great numbers? Although cultural, recreational, and even political activities would help occupy their time, income-earning pursuits are a greater need. It has often been suggested that we should have a rural works program for this purpose, but this has yet to be undertaken.

The most significant occupations of our employed youths are given in Table 111, which shows two definite patterns: Rural males are mostly farm workers (88%) and urban females are mostly in service work, mainly domestic helpers (71%). One-half of rural females are also farm workers; about one-fifth are in domestic service; and 17% are in crafts and production process work, etc. Considering these employment patterns and the fact that the majority of rural youths are unpaid family workers, we can appreciate their desire to move to the city. For young men, there is the lure of apparently "many job opportunities" and, for young girls, the demand for domestic servants is still unfilled albeit at low pay. To unpaid family workers either on the farm or in the household, the promise of cash earnings in the city, even though meager, is an attractive prospect.

Available labour force data from 1971 to 1974 for the 10- to 14-year olds show that, contrary to the expectation that farming is declining in importance as a source of employment, there is an *increasing "agriculturalization"* of the employment picture for both males and females from 71 to 78%. For manufacturing, a decline is evident from 6.1 to 4.4% of the labour force and, for commerce, a drop from 7.9 to 5.1%. This means that, for the early entrants into the work force, farming is still the major absorber of labour. The plight, therefore, of many Filipino youths is either in the *twilight zone* or in unpaid family work on the farm or at home. Neither of these is promising or lucrative.

Children's and parents' aspirations, expectations, perceptions, and exposure to the outside world

Although we have a general idea about the youths' major activities in life and the employment patterns of those who are working, we would like to know what makes them "tick", their aspirations, expectations, and perceptions of the world around them. The most comprehensive study on these aspects of our youths was done by the Citizenship and Research Foundation (CRF) for the National Manpower and Youth Council in a National Out-of-School Youth Survey. In an overview of the youth situation, the study points out that: "there is generally a negative conception of the out-of-school youth. As a residual category (e.g. defined negatively, those of school age but not in school) the out-of-school youth *ipso facto* tends to be viewed as a problem." Such a conception unfortunately reinforces merely the stereotypical belief of the common man, which may be stated simply as: "In as much as they are of school-age and they are not in school, then efforts must be made to get them back to school; and if that is not possible then, the second best thing would be to devise programs which would compensate for their lack of schooling."

The CRF report suggests that this "schooling consciousness" or the belief that only through education (defined as certified, formal schooling) might one succeed in life reduces the out-of-school youth to the status of second-class citizens which makes it difficult to effectively channel individuals towards nonschooling activities. Data from Table 112 reflect very much the existence of the "schooling consciousness" as indicated by the following trends:

(1) More than 90% of out-of-school (OSY) and in-school (ISY) youths included in the national survey believe that "one must have an education to be successful in life." More than 80% endorsed these statements: "When one is of school age, his most important job is to go to school;" "an educated person is always respected in the community;" and "attending school is not a waste of time and energy." The *value of education* as a *necessary ingredient for success*, as an *obligation for anyone* of school age, as a *source of respect* and as a *worthwhile focus* of *one's time* and *energy* is clearly evident in the perceptions of our youths.

(2) They are less sanguine in regarding a child as a burden to his family if he does not go to school. They are also aware that education is not a *sufficient* condition because they believe that knowing a "big shot" helps one to obtain a good job even without

schooling. Furthermore, they have some doubts about the relevance, practicality, and usefulness of what is taught in school. Only a little over half of them feel that it is wrong for parents to stop their children from going to school; more than 40% see nothing wrong in this. The least endorsed or the most negative assessment of schooling is the statement that "Teachers in school often know the true condition." Only a little over 40% agree with it. They seem to be skeptical about teachers' grasp of the realities.

(3) Using the responses to items in Table 112 as a basis for computing scores on general attitudes toward education stratified into three groups of indices, namely, *education as an obligation, education as a source of rewards*, and *education as relevant to reality*, Table 113 shows some interesting comparisons. As expected, ISY have more favourable attitudes on the three indices than OSY. Education as a source of rewards is the most positively viewed aspect of education, followed by education as an obligation; and education as relevant to reality is least favourable in the eyes of youths. Another noteworthy observation is that Manila respondents have higher scores for education as an obligation and education as a source of rewards than all the other nine regions. However, several of the regions have higher scores than Manila on education as relevant to reality. The provinces seem to look at education more favourably in this regard. However, Eastern Visayas and Mindanao have the lowest scores for education as a source of rewards.

(4) Educational competence as indicated by responses to two statements: "I sometimes feel that I just can't learn" and "I would do better in school work if teachers didn't go so fast" was likewise expressed in average scores. Table 114 shows again the previous pattern of higher scores for in-school than for out-of-school youths with Manila respondents having the highest scores or the most favourable assessment of their capacity to learn in school.

(5) Table 115 gives youths' educational aspirations and perceptions of their parents' aspirations for them; as expected, more in-school (59%) than out-of-school youths (40%) aspire for college education. In general, youths expressed higher educational aspirations for themselves than what they think their parents want for them. The ISY's perceptions of their parents' aspirations are more toward college education than the OSY's perceptions of their parents. *Twice as many OSY as ISY aspire for vocational education.* This appears to be a more realistic dream than aspiring for a college degree.

An analysis of these data by regions not presented here revealed two distinct directions: Whether OSY or ISY or their perceptions of parental aspirations for them, *Manila respondents have the highest educational aspirations of all the regions. Eastern Visayas* and *Mindanao*, however, *registered the lowest.*

The National Survey also looked into youths' sense of personal competence as measured in terms of "expressed ability to control one's life and one's environment by the use of rational means rather than by faith in external forces such as luck or chance." The statements used for this purpose are presented in Table 116. Judging from the items which were endorsed, our youths seem to be simultaneously governed by luck, self-confidence, and drive to get ahead, tempered by an acceptance of their condition in life. Although more than 85% believe that they are able to do many things well and would make any sacrifice to get ahead in life, more than two-thirds feel that people who accept their condition in life are happier than those who try to change their condition. However, about an equal number would like to be someone else. The role of factors beyond one's control in attaining success is acknowledged. But despite all these mixed feelings, there is a pronounced optimism reflected in the 70% who did not endorse the statement: "People like me do not have much of a chance to be successful in life." Only 30% agreed with this. The *majority feel they have a chance to succeed in life.* What is also interesting is that the OSY and ISY do not differ much in their sense of personal competence. When average personal competence scores were computed, Eastern Visayas and Mindanao again registered the lowest and Manila, the highest scores (Table 117).

Since "schooling consciousness" is very marked, we would expect youths to react discouragingly to dropping out of school. Table 118 shows that although the majority were disappointed, their reactions differed by region. As usual, Manila youths expressed the greatest disappointment. Those from Visayas and Mindanao showed the most indifferent and even happy attitude toward leaving school. These attitudes are reinforced by the proportion of OSY who have no intention of going back to school. Manila youths have the lowest proportion of those not intending to return to school and those from Eastern Visayas and Mindanao have the most. Manila youths also reported the most frequent discussion of schoolwork with their parents which suggests greater parental interest.

Eastern Visayas and Mindanao respondents indicated relatively infrequent discussions with parents. Moreover, it should be pointed out that Eastern Visayas youths exhibited the least disappointment and the greatest degree of indifference to leaving school. The desire to stay in school is, therefore, not equally valued by all our young people. For those who are happy to leave school, the "drop-out" label probably should not apply. Of those who have to leave school, the majority are forced to do so for financial reasons, but they hope to return to school some time.

How much do our youths expect for themselves? The National Survey used Cantril's self-anchoring striving scale which is "a projective technique that measures people's expectations by allowing them to use their subjective references rather than using an externally imposed criterion. According to this technique, the respondent is asked to describe his conception of the best and the worst possible life with the use of a 10-step ladder device numbered 1 to 10 (where 10 represents his conception of best possible life and 1 represents his own conception of the worst possible life). He is asked to indicate where on the ladder he stood in the past; where he stands today and where he expects to stand in the future." Table 119 shows the average levels of personal expectations expressed in scores. A number of patterns can be identified from these data: (1) On the whole, ISY have higher personal expectations than OSY whether for the past, the present, or the future. (2) In line with the general pattern of Filipino optimism for the future which was discussed in an earlier Chapter on *Inequalities*, our youths displayed the same tendency. The present (ideal) is perceived to be better than the present (actual), which in turn is better than the past, but the future looks best of all in the eyes of the youths However, whether they are assessing their past, present, or future situation, Manila youths tend to "stand highest" in the self-anchoring ladder. Consistent with previous findings, Eastern Visayas and Mindanao tend to anchor themselves lowest on the "reference ladder." Compared with other areas, youths from these three regions have lower expectations even of their future.

This recurring pattern of Manila youths' scoring highest or aspiring most and Eastern Visayas and Mindanao youths' registering lowest, whether on educational and personal competence, educational aspirations, or personal expectations, cannot be without significance. Another nationwide study to survey the outcomes of elementary education (1976) has similar findings. Sixth-grade pupils from Metro Manila and Southern Luzon consistently scored higher in six subject matter areas tested than their peers from other regions. On the lower end of the scale were pupils from Eastern Visayas and Mindanao (20). These two prevailing patterns probably reflect the existing socioeconomic environment, youths' exposure to the realities of life, and the demonstration effect of these realities. Perhaps these conditions set the limits or the ceiling even for their dreams and aspirations. The Arong study underscored the importance of home background variables in explaining differences in test scores of pupils. The National Out-of-School Youth Survey found that father and mother are the most "significant others" to their children in the sense that they are the persons they would "most like to be" and are the "most influential" to them. Parents are also mentioned as the persons whose advice they most frequently listen to. Brothers, sisters, other relatives, and teachers also have influence; the latter, however, are more important to the ISY than to the OSY. About one-fifth mentioned the priest. Parents, therefore, and other members of the family are the most important sources of advice, influence, and role model for their values and behaviour. The attitudes and outlook in life of the youths are shaped very much by the nature of these influences, whether they concern school or nonschool matters.

In terms of exposure to the outside world via the mass media, Table 120 shows that radio listening is the most frequently used: followed by comics; then Magazines and Tagalog movies. As expected, ISY read books, magazines, and newspapers more frequently than the OSY. English movies are not as popular as Tagalog ones and television viewing is mainly an urban phenomenon with about one-half of Greater Manila youths indulging in such activity. They also lead in newspaper reading whether among OSY or ISY. The impact of mass media on rural youth would, therefore, come mainly from radio and comics.

For a closer view of rural youth at the village level, five studies done in Laguna, Quezon, Albay, Samar, and Leyte have been reviewed (17, 71, 75, 121, 138, 191, 202, 284). The following are the most salient findings of these studies:

(1) Although the barrio is a preferred place of residence, the city, particularly Manila, is regarded as the place that offers work opportunities. The desire, therefore, of many village youths is to move to Manila. What prevents some of them from actually doing so is lack of money for transportation and subsistence. Being in school, having

higher income, and higher educational aspirations and perceptions of studying as the alternative to the improvement of one's life are associated with higher propensity to migrate. Comparing their state of livelihood and life chances with those of youths from the barrio, the town, and from Manila, the OSY felt more deprived than the ISY. The more urbanized the place of comparison, the worse-off the rural youths perceived their situation to be, so that they felt most deprived relative to their colleagues in Manila. The youths from Laguna barrios, which are not far from Manila, have a more favourable assessment of their village as a place of residence and as a place of work compared with youths from Albay, Leyte, and Samar. As a matter of fact, the Southern Leyte study showed that out of 1020 elementary school graduates from 1966-70 in 12 barrios, 38% were in school, 20% migrated to cities, 11% went to towns, 1% went to other barrios, and 11% migrated to other places unknown to the sources of information (teachers, parents, relatives, neighbours, and friends) in the barrios studied. The 19% who were out-of-school and were residing in the barrios became the respondents in the study. This means that of the 40% elementary school graduates who had moved out of the barrio, more than half of them went to the city. The Samar study found that of the 741 graduates (1968-73) from the four high schools in the municipality of Borongan, Eastern Samar, only 155 or about 20% remained in the municipality. Eighty percent migrated elsewhere.

(2) Children who work away from home send cash contributions to their families in the barrio. Being a domestic servant is one of the most predominant away-from-home jobs for females. Nonfarm work and some hired farm labour absorb some of the males from the barrio.

(3) Alternatives for rural youths who remain in the barrio are rather limited. For the OSY, the majority are not gainfully employed although it is inaccurate to say that they are idle. They are mostly unpaid family helpers on the farm and in household chores. The latter can occupy a significant portion of female youths' time. The tasks of cooking, baby-sitting, laundry, house cleaning, etc. can absorb many hours of labour every day of the week.

(4) As indicated in the National Survey, college education is the dream of most rural youths and of most parents for their children. College education is regarded as some kind of a vague insurance for a better job and a better future. This idea persists even if they are aware of unemployed college graduates and successful nondegree holders. The problem of educated unemployment is blamed more on the graduates themselves than on the demand-supply situation. However, there is a considerable element of fantasy in this dream for college education because their own expectations of fulfillment are much less optimistic than their aspirations. Nonetheless and despite all odds, there is some degree of persistence toward this dream as evidenced by their return to school even after a drop-out period brought about by financial problems, their need to help on the farm, or even poor health. Going to school is also perceived as an immediate alternative to working as a useful way of occupying one's time, especially because gainful employment is not easily available.

(5) Although the majority of rural youths have thought of farming as an occupation, it is not really a preferred occupation. It is something to fall back on when the first choice (college education or skilled job with regular income) fails to materialize. There is an ambivalence in their attitude toward farming. To them, farming as an occupation offers a good potential "if" conditions happen to be "right" and favourable. Farming is a risky enterprise and is not a definitely positive and dependable source of income. Hard physical work involved and risks of crop failure are the specific negative features of farming which make it unattractive to many. Furthermore, contrary to popular belief, farming as an enterprise to be managed and operated by youth on his own is not an alternative available to many children. Farms in many rural communities are small for the average family size (6 children) and, therefore, a farmer cannot relinquish the farm to his child because it is the family's major source of income. The usual practice, therefore, is for the child to work on the farm as unpaid family labour or as hired farm labour on somebody else's farm. Of course, in the case of nonfarm households, there is really no land to farm and so farming is not an alternative for their children. Among the rural youth, perhaps another major disincentive to farming is that he will not receive an independent source of income by working on the family farm. Although it occupies his time and he contributes his labour to the enterprise, the farm does not belong to him. Therefore, when a child says that he will go into farming if he cannot go to college or find another job, it usually means labour contribution to a farm which is being cultivated by the family either as owner, lessee, or share tenant.

(6) Because family incomes in the villages studied are low (the majority have a total monthly income of P300 and below) with an average of six or more children, parents were asked whether they thought this was adequate. It is interesting that the majority of the parents considered their income adequate, but the better-off barrio had a higher proportion who perceived the inadequacy. The reasons cited for regarding their income as adequate were: ability to meet basic needs; absence of indebtedness; presence of more than one breadwinner; no feeling of shortage; and ability to send children to school. The poor rural family's capacity to survive with limited means was revealed in some of the parents' reply that *they adjust their needs and desires to their incomes*. The reasons for perceived income inadequacy centred on inability to satisfy basic needs, including food. Too many children was also cited as a factor. Others dwelled on the high cost of living.

To determine the extent to which parents recognize the relationships between family size, income, and their children's future, they were asked if life chances would be better if they had fewer children. Almost 80% replied positively to this question. Their reasons for the affirmative response are of two categories: First, there would be fewer mouths to feed, fewer to clothe, and fewer to send to school; hence less expenses, etc. Second, there would be more resources available to fewer children who would be better cared for. These two sets of responses are qualitatively different. When one thinks of "fewer children means fewer mouths to feed," the motivation to increase productivity may also be diminished. As we often hear: "What is the use of working so hard when you have only two children?" On the other hand, the second category of response implies a nondiminished need for resources in order to achieve a better quality of life using fewer children as an avenue. But more revealing than these two observations are the reasons parents give for saying that even with fewer children, life chances for them would not be any better. They have very eloquently pointed out that there is no necessary relationship between number of children and state of livelihood because there are parents who have only one or two children and are still poor. Furthermore, they argue that fewer children means fewer breadwinners and, therefore, lower family income. Poverty, in this case, makes a virtue of large family size. The trend of more children from farm than nonfarm and urban families is not likely to change drastically, considering the socioeconomic conditions in most of our rural areas. The coming into the world of more and more rural youth is something we can, therefore, expect.

(7) How do parents view their village as a place to live and as a place to work? Parents, in general, are quite happy to spend the rest of their life in the barrio. Although the barrio appears good enough for themselves, the parents are less positive about it for their children. Some villages, however, are viewed more favourably than others. Where parents view the barrio favourably, they tend to endorse it also as a place for their children. The reasons for wanting to see their children live in the barrio the rest of their life are: the desire for physical and emotional closeness among children and between parents and their children; the need for children to receive parental care and guidance; and the belief that children can also have sufficient income in the village. The desire for their children to have better opportunities and other experiences elsewhere is the principal reason for not wanting them to live in the barrio forever. From these reasons, one can gather that the barrio as such is not all that bad but that better opportunities can be found elsewhere. The city is usually perceived as "this elsewhere". It is not so much the "push" of the barrio but rather the "pull" of the city which draws rural youth away from home.

Barrio teachers and community leaders express a general feeling of dissatisfaction with the life of rural young people. When asked as to what alternatives might improve their life, most of their suggestions centre on vocational and other educational opportunities. Farming and cottage industries are mentioned only by a few. Even where there are a number of cottage industries, they are not mentioned as a way of improving the life of the youth. Apparently, they recognize that these have absorbed only a limited number of youths at relatively low wages. The leaders' dissatisfaction with the youths' life is very much associated with juvenile delinquency problems such as drunkenness, petty thievery, gambling, vagrancy, and vandalism.

Educational schemes for rural youths

Elementary schooling is regarded as a basic human right of every Filipino and, therefore, it is believed that every child should have access to it. At the secondary level, there are continuing debates on vocational-academic; terminal-college preparatory; formal-nonformal education in relation to employability, rural-urban migration, and development relevance. Because two-thirds of Filipino youths are in the rural areas, the

nature of high school education for them is a significant issue. While economists argue about rates of return, educated unemployment, and contribution of education to development, educators design and implement different curricula with specific remedial or developmental objectives in mind. Although there are a number of such educational schemes including fishery, trade, and agricultural high schools, there is considerable interest in the *Barrio High School* (now called Barangay High School) because they have mushroomed all over the countryside; the *Barrio Development School* because it was purportedly tailored for rural development; and the old *2-2 Plan*, because it combines features of both and yet is not quite like either of them.

In 1964-65 four barrio high schools were established with an enrolment of 352 students. As of 1968 there were 1188 such schools with 118 193 students. On 2 June, 1969, Republic Act 6054 was passed to institute a Charter for Barrio High Schools. The policy of the Act is "*to make possible equal opportunities for high school education for all the children of all the people of the Philippines regardless of birth or of the economic condition of their parents, thus enabling all the people to achieve high school education.*" Supportive of this policy are observations that: "the minimum requirements for employment in the lowest available job is graduation from high school;" that "the two major causes of school drop-outs as revealed by official surveys are financial reason and distance of students from schools;" and that "the establishment of a high school close to the home of students will solve, at least partly, the problem of distance and consequently, the problem of economy." Furthermore, it was argued that "there is a direct relation between the level of education of the people and the level of their socio-economic status."

Under this Act, barrio high schools may be organized in the barrio at the instance of the Barrio Council whenever at least 40 students in the barrio are available to constitute a class. Parents should sign a petition for the establishment of the barrio high school. It is supported primarily by tuition fees paid by students. Salaries of full-time teachers and honoraria for part-time teachers are paid from tuition fees. Existing facilities of elementary schools and their teachers may be employed on a part-time basis for no more than two periods per day of classroom work.

In 1970-71, there were 1621 such schools and by 1977 about 2000. Because the curriculum in the barrio high school is general academic and college-preparatory, there are some misgivings about its value. For example, two questions were raised: "Being a college-preparatory school, what will the graduates do? How can the barrio high school contribute to the improvement of rural life?" (96).

As a consequence of these misgivings, the *Barrio Development School* concept was born and implemented in July 1970. The architects of this innovation had three basic considerations in designing their creation. (1) "There are two kinds of youth who grow up in the barrio with respect to their future work and residence: those who will leave the barrio and those who will stay. For those who choose to leave the barrio, the Philippine educational system is providing plenty of opportunities for them to study in preparation for life outside the barrio... for those who are staying to live and work in the barrio, there is none." (2) Agricultural high schools which are charged with the function of training youths who are farmers and who are preparing to become farmers have not really succeeded in doing so because the majority of their graduates proceed on to college and are then lost to the barrio. (3) The existing schools train youths to be employees and do not train them for entrepreneurial self-employment.

Given these weaknesses of present educational schemes, the new Barrio Development School (BDS) is described as "*a secondary school program for the barrio youth who has decided to stay, live, and work in the barrio as a farm operator.*" The school curriculum includes, among other subjects, a supervised farming program (conducted at the home farm of the student) as the core of classroom instruction, reinforced by classroom instruction in production agriculture, tool subjects, and citizenship subjects. The tool subjects are language usage (communication skills), applied arithmetic, applied science, and farm economics. The medium of instruction is a mixture of Tagalog and English or whichever of the two facilitates the understanding and learning of new ideas. The citizenship subjects include: Reading, Philippine history, Philippine government, world history, and health. Supervised farming activities take one-half day and the other subjects are studied during the other half. Classroom instruction in production agriculture and in the other supplementary subjects is taught in relation to the supervised farming programs of the students. In the natural setting of learning by working on his own farm, the future farm operator not only learns the skills of production but also acquires the skills and abilities in coping with the problems of supply, labour, credit, marketing, and other

management requirements of modern farming in the locality. Credit and savings education is emphasized. Through a guaranteed loan fund scheme, the student is aided in obtaining loans from the rural bank and in using and paying for credit.

Support of the school is on a partnership basis. Through the student's tuition fee of P6.00 a month, the barrio people partly pay for the salary of the teachers. This gives the barrio people, particularly the parents, a sense of commitment and control over the school program. Under a partnership venture, the policies affecting the school and the community rest upon the Local Advisory Committee composed of the barrio captain, PTA president, one outstanding farmer leader, public school district supervisor, school principal, and the agriculture teacher. This committee meets regularly once a month.

"The ultimate measure of success of the Barrio Development School is the establishment of economic-scale farming by the graduates. It is a *terminal four-year curriculum* in the sense that *students cannot* go to college" (97).

The third type of secondard school offers the *2-2 plan curriculum* wherein the students take the same subjects during their first and second years and select either a college-preparatory or a vocational curriculum when they reach the third year. For college-bound students, more academic training which includes more science and chemistry in their curriculum is emphasized. For vocationally-inclined students, the areas of specialization range from agriculture, commercial and industrial arts, and general home economics. An *important feature of this 2-2 plan is that it enables a student to go to college whether or not he chooses the college-preparatory or the vocational curriculum during the last two years.*

However, even when these educational alternatives exist, not all the children choose to or are able to participate; hence, there remains a substantial proportion of rural youths not in school. When one is studying, the employment problem is postponed for four years or more, but for those not in school, it is an immediate concern. By its very nature, education, especially formal education, is more readily planned and provided for; but employment, particularly rural employment, is often a by-product or a concomitant of the process of agricultural growth. There are no easily implementable grand schemes for employment-generation which parallel the innovations educators design; hence, rural youths are limited to whatever jobs the community offers unless they move to the city in search of "greener pastures."

Conceptually, these three types of schools all have their *raison d'etre* and their corresponding attractive features. To obtain some idea of the employment and further schooling of their graduates and the school's role in the community, three village-level case studies were conducted which included parents, community leaders, teachers, students, and out-of-school youths. The three villages studied were: Masaya, Bay, Laguna where they have both a Barrio High School (BHS) and the Pilot Barrio Development School (BDS); Malipo, Guinobatan, Albay which has a Barrio High School; and Lucban, Quezon, which has the Lucban National High School offering the 2-2 Plan. This latter school is well-established, nationally-supported, and is the largest of all the schools studied (75).

The case studies yielded a number of relevant observations which have broader implications for the problem of schooling and employment.

(1) The youths look upon the school mainly as an educational opportunity, either academic or vocational, and as a molder of character; from the parents' view, the local school minimizes expenses, helps discipline children, provides occupational training, and of course, molds character; from the community's view, the school promotes beautification and cleanliness and contributes to progress by encouraging participation in government programs. Other functions of the school which were mentioned are: it provides citizenship training and adult education for parents, promotes peace and order, and develops ability to deal with other people. From the different groups of respondents in each community, it is obvious that the school performs many functions, only one of which is to prepare youths for employment. Its role in *inculcating discipline, promoting peace and order, providing inexpensive education,* and in *serving as an instrument for progress in the community* is very much emphasized by all sectors.

(2) Considering the circumstances prevailing in each school, it is only natural to expect that teachers will feel differently about their school and the opportunities for the graduates. Teachers in Lucban were most satisfied with their job and were the least inclined to leave their positions for other job prospects. Understandably, the Malipo teachers were most unhappy about their positions because their school was the least

established and the poorest, and they were the lowest paid. When asked how their graduates compare with those of other high schools in job opportunities, all the Lucban teachers were confident about their school. The Masaya teachers believed that the BDS graduates would have better job opportunities than those from the BHS. The Malipo teachers were most negative in their assessment of their graduates' job opportunities. Even the teachers who were optimistic had very vague and limited notions of what job opportunities awaited both their graduates and their drop-outs. After mentioning farming, farm labour, and cottage industry, they indicated nothing more specific than skilled or unskilled labour.

This ambiguity and limited perception as to what lies ahead in employment is also very evident among the youths themselves. Although many of the ISY think that they can find employment if they cannot go to college, they are not certain where. Only one-fifth of them hope to find it in the barrio and, if they stay, farming is mentioned by one-half. One-third of them could not think of any job opportunity in the barrio. The OSY are more pessimistic than the ISY on this score. Less than one-half of them think that they can find employment if they cannot go to college. They are also more uncertain about job opportunities in the barrio.

(3) With all their aspirations and expectations for college education and for employment, what are the realities for the graduates of these schools? In Lucban, of students who finished the college-preparatory curriculum, almost the same number are going to college as are working. Although 38% of the vocational graduates are working, 21% of them are also in college. What is striking is that 41% of the vocational graduates are neither gainfully employed nor studying. Twenty-eight percent of the college-preparatory graduates are in the same situation. From the Masaya BHS, about 40% are still studying; about the same number are working; and one-quarter are looking for a job and/or helping with household chores. On the other hand, among those from the Malipo BHS who finished an academic curriculum, less than one-third have been able to pursue college studies.

Because the National College Entrance Examination (NCEE) is a requirement for admission to college, their performance in this examination is important if their dream of going to college is to materialize. The vocational curriculum graduates from Lucban are not particularly handicapped in this regard, although predictably slightly more of them than of college-preparatory graduates failed in the NCEE. For the Masaya BHS, 82% passed and, for Malipo, of the two out of the 22 students who took the examination only one passed, the other one not bothering to find out the results.

In college studies or employment, graduates from the college-preparatory and the vocational curricula of the 2-2 plan do not differ in their educational pursuits after high school. They have about the same proportion of graduates in vocational and college degree courses, contrary to what one might expect. There are more college-preparatory than vocational graduates, who are not studying, in farming and in hired labour. There are more vocational graduates, however, working as domestic help, or engaged in weaving and bag designing. Those who said they are "doing nothing" are performing household chores, helping on the farm, weaving, sewing, etc., but not for regular wages.

Among the 12 Masaya BDS graduates, only 7 have continued with their farm projects while working as farm labourers because the earnings from these projects are not sufficient sources of income. One of them had opted to study automechanics which is something completely different from the supervised farming curriculum. It is significant that, even though there were only a dozen graduates, not one is "established in farming" as envisaged by the BDS program. For the Masaya BHS graduates, there are more who are taking vocational than college-degree courses. Like the graduates of the BDS, those who are working are engaged in farming and in farm labour.

Data on place of study and place of work for the high school graduates show that those who are studying are doing so in places outside their community. This is to be expected because there are no further educational opportunities in their community. Considering the nature of their vocational and college-degree courses, the chances of their returning to the village are very slim. Of those who are working, the Malipo youths are the most inclined to move to Manila and they contribute the most, proportionately speaking, to the Manila migrants; these are followed by Lucban youths; and the least migratory of all are those from Masaya. About one-half of the employed graduates from Lucban receive less than P100 a month; for those from Masaya, the average monthly income is P172; and for those from Malipo, only the security guard, janitor and waiter who works

in Manila earns more than P100 a month (about $13). Even those who are employed, therefore, have meager earnings, which they say, is better than not having any income at all.

(4) The most dramatic observation in the three communities studied is the case of Masaya, Bay, Laguna. Although more ISY than OSY aspire for college education in the three villages, in Masaya the proportion aspiring for college education, even among the ISY, is lower than for either Lucban or Malipo. Among the OSY, Masaya also has the highest proportion of gainfully employed, mostly as hired farm labour. Masaya youths and parents were the most satisfied with the life of the youths and have the most favourable assessment of their village as a place of residence and as a place of work. They also have the greatest desire to stay in the village for the rest of their life and have the least inclination to move to Manila. More of the parents in Masaya than in Lucban or Malipo reported adequacy of family income.

Masaya appears to have a "happy" situation where what they want in life is what the community offers. This village has a diversity of crops which makes year-round employment possible. At the time of the study, the prices of rice, sugarcane, coconuts, bananas, citrus, and coffee were all high and farm wages were higher than in Lucban and Malipo. Children's earnings from farm labour contribute to family income and, at the same time, rice provides assurance of food. Rice lands are also irrigated and, therefore, at least two crops a year can be grown. Furthermore, Masaya is only 70 km from Manila, has electricity, an all-weather road, and available public transportation. It should also be noted that many of the Masaya parents are migrants from other places; hence, this village is already the product of a search for a better life. Despite the relative proximity of Masaya to Manila, their youths have much lower geographic mobility and exposure to the outside world than Lucban. We cannot attribute low migration propensity to low exposure and low geographic mobility because Malipo, which has the least exposure, has a higher proportion of youths wanting to migrate to Manila. Malipo is a poor, deprived, isolated community compared with Masaya.

(5) The performances of these three types of schools in terms of their objectives have interesting implications. The 2-2 plan curriculum of the Lucban National High School shows that those who pursued the vocational curriculum can, in effect, "have their cake and eat it too!" The employment patterns of graduates who are working and the courses being taken by those who are studying either vocational or college-degree-oriented courses did not differ despite the fact that one group pursued the vocational and the other took the college-preparatory curriculum. Their performance in the NCEE did not differ very much either. In other words, the vocational curriculum graduates had no particular handicaps in obtaining entry into college-degree courses, but neither did they have any real advantage in terms of greater employability than those who graduated from the college-preparatory curriculum.

In the case of the Barrio High School, it has a built-in "success factor" in their program because its main objective is "to make possible equal opportunities for high school education for all people of the Philippines regardless of birth or of the economic conditions of their parents, thus enabling all the people to achieve high school education." All sectors of the community, both in Malipo and Masaya, acknowledge the fact that the BHS has provided village youths of high school age an access to low-cost secondary education near home. This convenience makes it possible for them to go to school while, at the same time, helping in farming and household chores, especially during the peak season of labour demand. Besides its low cost and convenience, the other major virtue of the BHS is its college preparation.

On the other hand, the Pilot Barrio Development School (BDS) in Masaya has a built-in "failure factor" because "it is a secondary school program for the barrio youth who has decided to *stay, live,* and *work* in the *barrio as a farm operator.*" Furthermore, "their ultimate measure of success of the BDS is the *establishment of economic scale farming by the graduates.*" These two objectives of the BDS program are both difficult to realize because whether or not village youths *stay, live* and *work* in the barrio as farm *operators* is determined by factors beyond the control of the school and its curriculum. Circumstances obtaining in the community are quite crucial in this regard. From the follow-up of the 12 graduates, *none* of them became an economic-scale farm operator. Those who continued with their farm projects did so only as a side activity to their main job as hired farm labourer because income from the project was not a sufficient source of livelihood. Furthermore, they have no land that they can cultivate or farm on their own. BDS students have a very positive view of farming and of their community as a place of

residence and place of work. However, this cannot be attributed to the terminal supervised farming curriculum because the BHS students and even the OSY in Masaya have the same views.

The heart of the BDS is the supervised farming program. It is this feature of the school that has generated the most favourable comments from students, parents, teachers, and community leaders because students earn while studying. It also serves as an extension arm of the school in reaching farm families. Furthermore, it is a learning-by-doing approach using real-life enterprises carried out with all the costs and risks of farm production, management, and marketing. These types of skills and experiences, when effectively imparted, represent assets for survival even in the competitive world of the city. Unless the village provides a socioeconomic environment for profitable application of such skills, we should not be surprised if the graduates find a market for their skills and experience elsewhere. Perhaps in places where more land is available for farming, there would be a greater likelihood for BDS graduates to stay and become established as farm operators in the community. But this remains to be seen, especially if the number of graduates from the school increases. How many of them can be absorbed by the village economy? Parenthetically, the Pilot Barrio Development School in Masaya has been phased out of the village as of 1977.

(6) Alternatives for rural youths in the three communities studied are rather limited. For the out-of-school youths, the majority are not gainfully employed, although it is inaccurate to say that they are idle. They are mostly unpaid family helpers on the farm and in household chores. For those who find paid jobs, they are employed as hired farm labour; unskilled labour; semiskilled factory worker; handicraft worker; peddler; dressmaker/tailor; domestic helper; and a few are in service jobs such as waiter, janitor, salesgirl, etc. For those who are in high school, their dream is to go to college, but only a few can actually do so. Their job opportunities upon graduation are not much better than those who are out of school. Many still find themselves "doing nothing". This is not exactly true because, like the OSY who do not finish high school, they are helping in farm and household chores. Those who continue with vocational and college-degree courses will most probably find their future and their "fortunes" outside the village. The so-called gainfully employed among the OSY and the high school graduates receive little earnings for their work, less than P100 a month for most, and a few make about P200. About one-half of the employed are working outside their village. Given these rather unexciting prospects for rural youths, with or without high school education, which would be preferable: to be little employed and little educated or little employed but a little more educated?

The related issues of education, training, employment, and migration

The educated unemployed and the unemployed out-of-school youth are two problems which have generated many solutions such as the vocationalization of high schools, work education, the institutionalization of a National College Entrance Examination, the creation of the National Manpower and Youth Council, nonformal education, and other agencies concerned with out-of-school youth programs. Typical of the reaction to and assessment of some of the solutions to these problems are the studies of Illo and Lynch (181) and Guerrero (160).

Illo and Lynch in their study in Camarines Sur ask: "What effects would likely follow if high school training were made more readily available to a larger percentage of the labour force?" The immediate effect they predict is an increase in the percentage of unemployed and, therefore, from a labour force point of view, they conclude that "the mere multiplication of high schools in the River Basin is not a good idea. Nor is there, despite a popular opinion to the contrary, any advantage likely to be gained by further vocationalizing the high school curriculum." Their suggested tactics, in lieu of more high schools or in-school training, are: (1) a serious intensive effort to upgrade the quality of formal education in the Bicol River Basin, particularly (to start with) at the elementary and secondary levels; and (2) an all-out effort to increase employment opportunities, especially in nonfarm occupations. To achieve the second goal in a rational fashion, a survey of existing establishments, including those outside the manufacturing sector, will be an obvious prerequisite.

In an assessment made of 87 OSY programs, Guerrero et al. found that, after training, more than one-half of the trainees remained unemployed or not working. The OSY were equally divided in their opinions on whether their training had a bearing on their present job. One-half claimed it is related; the other half said it is not. The change

in income after training was minimal and more than one-third had a monthly income of less than P100; another third earned P100 and P199 per month. The study concluded that: "the programs had minimal effect on the employability of the trainees. The increase in employment was rather small and those who got employed were in low-paying occupations." The suggestion was for the OSY programs to continue with their present objectives of training the OSY in skills that would increase their employability and economic sufficiency but to consider the absorptive capacity of the economy for specific types of skills (160).

As stated earlier, findings of the three case studies mentioned above with respect to the relationship between different secondary school curricula and employment are not very encouraging. In the light of these discouraging results from a variety of sources, we need to reexamine the assumptions underlying the employment objectives of education and training programs. We must recognize that there are limits to what education and training can do to promote employment and, therefore, the fact that youths remain unemployed after undergoing training, finishing high school (even with a vocational curriculum), or graduating from college cannot all be blamed on the school or on the failure of the training program. After we succeed in establishing cottage industries, small-scale manufacturing, livestock raising, service industries, construction, dress-making and tailoring shops, etc., there is still the basic problem of marketing products and creating a demand for services. Unless an export market is available the domestic demand for these goods and services depends on the purchasing power of the local population, which in turn is determined by their incomes. There is evidence that, where farm income has increased, the demand for goods and services has also increased and so have the opportunities for nonfarm employment (68, 155). Programs, therefore, that are designed to increase or complement agricultural productivity efforts have very positive implications for labour absorption both in farm and nonfarm employment. These include irrigation, farm-to-market roads, credit, productive technology, etc. Policies that promote domestic or export markets for our products can also have a more significant impact on youth employment than all our training programs combined. It is not necessarily because our training and educational strategies are not effective but mainly because *employment-generation is infinitely more difficult to bring about than schooling or training.*

For a dramatic illustration of how government policy on agricultural development has significantly changed the employment situation for agriculturists, let us look at Leonor's 1969 study on high-level manpower needs in agriculture. His findings indicated that, based on employers' reports on anticipated needs and on an estimate of the potential supply within the next 5-year period, only about 72 out of every 100 of the anticipated needs could be met. However, if the rate of increase in manpower stock for the 2-year data analyzed were used as the basis for effective hiring for the next few years, the *employers could absorb only as many as 46 out of every 100 in the total supply* (207).

In Leonor's 1975 study on the labour market for high-level manpower in agriculture, the employment outlook for 1976-80 has shifted considerably. As he concludes:

"If the projected needs in 1976-80 include those of 1975 and the existing vacancies, the employers would be more than doubling their present level of employment of B.S. degree graduates; about 30 percent more of those with the M.S., and 25 percent more of the Ph.D. graduates. The expansion of the manpower needs is quite high among government agencies. While the employment opportunities in the firms and colleges would not likely be as high as in the government agencies, yet the prospects are just as bright even without considering fully the needs of the Bureau of Vocational Education and of the Bureau of Public Schools.

If the projected needs reported were in addition to the existing vacancies this year and the needs in 1975, the prospects for employment among agriculture college graduates would even be much better. The government agencies, for example, would be increasing their present level of employment by more than one and a half times for college graduates and almost close to that rate for those with advanced degrees. Among the private firms and schools, the expansion needs appear also substantial although not as large as those of the government agencies " (208).

This upward swing in the demand for agriculturists has taken place without revisions in the curricula of agricultural colleges. The market for their services is stimulated by the many government programs for agricultural development. It is about

time we disabuse ourselves of the notion that education (even reformed and restructured education) can solve the employment problems of youths. Education and training should not be held solely responsible for our failure to generate more employment.

It is very difficult to argue against education and training of youths even if we know that these programs can only lead to marginal or minimal employment. Although we should endeavour to improve the quality of education and training, we probably cannot as yet expect significant employment-generation from these investments. Perhaps we should regard these programs as a *subsidy to youth*, the *social cost of bringing them into the world*.

No one can disagree with the Illo-Lynch suggestion of improving the quality of elementary and secondary education. When we promote better quality educational facilities and resources in the rural sector (and we should really do so), there are at least three possible outcomes:

(1) Rural-urban migration would increase because potentials for college entry would be enhanced. If they finish college education and economic opportunities and amenities in their communities have not changed, their return to the rural area is not very likely. On the other hand, we can argue that if the "good things in life" are centred in the urban areas, then rural youths should have an equal chance to take advantage of these opportunities by migrating to where these "good things" are.

(2) The other side of the coin, which justifies more educational investment in the rural area, is the fact that one source of a community's attraction to professionals is the quality of educational facilities available to their children. The willingness of a doctor, an irrigation engineer, an agriculturist, or even a teacher to work and stay in a particular rural community is often aggravated by poor educational facilities. This is also the lament of local government officials who are unable to hold on to needed development personnel. Hence, the slow phase of development programs in such places. Of course, we have also seen that, where business and industry have moved into an area, the amenities, including better-quality schools, seem to follow. On the other hand, all studies of rural-urban migration have shown that, in addition to perceived employment advantages in the city, better educational opportunities for their children are part of the inducement to migrate.

One can also speculate that successful programs in urban renewal, urban relocation, and urban housing are, in fact, potent demonstrations to rural youth of the obvious benefits of urban living, even if they start as squatters. Unless there is a major flow of development resources to the rural sector to counterbalance the lure of the city, there is no reason to expect a dampening of the metropolis movement and no humane rationale for promoting a policy of keeping rural youth where they are. We should, therefore, consider the rural side of the urban movement and deliberately plan for and develop several regional and provincial urban centres so that the Philippines will cease to be Metropolitan Manila and the rest of the country. Fortunatley, there are development investments being made in this direction although significant impact has yet to be felt.

(3) We can expect more equality between rural and urban youth in terms of access to better-quality education and consequently more equal access to occupations which put a premium on educational qualifications. If the much-dreamed-of college education is available within the region or the province, then it is not necessary to go to Manila. The chances are much greater that these youths will stay in the province to take the locally available development jobs if they have been educated in the province. The Leonor study (202) which indicated the increasing localization of student clientele in the regional and provincial colleges of agriculture is evidence that this is a definite possibility. Among development agencies, there is also a growing preference for hiring local graduates. However, it is too much to expect that the majority of rural youths would return after education to their village and continue to live and work there. At the moment, the best that can happen is for them to make a shorter-distance move to an urbanizing area in the region, a provincial or town centre. As long as our villages remain deprived and poor, the "little-educated" rural youths will be "left behind" in the village and those with more education will look for a better life elsewhere, whether or not they actually find it.

SUMMARY AND CONCLUSIONS

Although rural youths make up the majority of Filipino youths, they rarely become the focus of national concern for they are not as susceptible to the mass media as city youths. Because, in many ways, the face of our country's future depends on what happens to the villages of today, we should take serious notice of rural youths who represent a sizeable proportion of our total population in the rural areas. This chapter defines the situation of rural youths and describes the realities of their existence by presenting (1) some socially significant statistics; (2) children's and parents' aspirations, expectations, perceptions, and exposure to the outside world; (3) educational schemes for rural youths; and (4) the related issues of education, training, employment, and migration.

Some socially significant statistics on Filipino youths

The age group 10-19 was chosen as the focus for this analysis because they are no longer children and yet are not quite adults. School drop-outs also accelerate at this period. In 1970, there were 8 million youths 10-19 years old. While more of the rural than of the urban youths are employed, there are more urban than rural youths in school. More rural than urban females are engaged in housekeeping. Among the employed rural youths, about *two-thirds* are *unpaid family workers*. Forty percent of the youths 10-19 years old are in a *twilight zone* of not being in school, not being employed, and not really doing much. They are often said to be *"doing nothing"* except to be of some marginal utility to the household.

Among those who are employed, rural males are mostly farm workers and urban females are mostly in services, mainly domestic helpers. One-half of rural females are also farm workers. Contrary to the usual expectation, there is an *increasing* rather than a declining *agriculturalization* of employment among rural youths. The plight, therefore, of many Filipino youths is either in the *twilight zone* or in *unpaid family work* on the farm or at home. Neither of these is promising or lucrative.

Children's and parents' aspirations, expectations, perceptions, and exposure to the outside world

Among our youths, whether in- or out-of-school, there is a very pronounced *schooling consciousness* as revealed in a National Out-of-School youth Survey. The value of education as a necessary ingredient for success, as an obligation for anyone of school age, as a source of respect, and as a worthwhile focus on one's time and energy is clearly evident in the perceptions of our youths. Education as a source of rewards is the most positively viewed aspect of education; followed by education as an obligation; and education as relevant to reality is the least favourable in the eyes of youths. In terms of educational competence, in-school youths have more favourable assessments than out-of-school youths of their capacity to learn in school. More in-school youths aspire for college education and more of those out-of-school aspire for vocational education. Manila youths registered the highest educational aspirations of all the regions; Eastern Visayas and Mindanao indicated the lowest. The same trend is evident in the youths' feelings of personal competence. Manila youths likewise expressed the greatest disappointment about dropping out of school and those from Visayas and Mindanao showed the most indifferent and even happy attitude toward leaving school. Manila parents also indicated greater interest in their children's school work. For those who did not wish to leave school, the most predominant reason for dropping out was financial.

In-school youths showed higher expectations in life than those out-of-school, whether for the past, the present, or the future. There is a general pattern of optimism for the future but Manila youths registered the highest expectations, whether for the past, present, or future. Eastern Visayas and Mindanao tended to have the lowest expectations. The recurring pattern of Manila youths scoring highest or aspiring most, while Eastern Visayas and Mindanao register the lowest scores, whether on educational and personal competence, educational aspirations, or personal expectations, cannot be without significance. Another nationwide study to survey the outcomes of elementary education had similar findings, which suggests that these patterns reflect the realities

of existing socioeconomic conditions in different parts of the country. In terms of exposure to the outside world via the mass media, radio listening is most frequently indulged in, followed by reading.

From an analysis of several studies of rural youth at the village level, a number of salient findings emerge: (1) Although the barrio is a preferred place of residence, the city, particularly Manila, is regarded as the place which offers work opportunities. The desire, therefore, of many village youths is to move to Manila. Being in school, having higher income, and higher educational aspirations and perceptions of studying as the means to improve one's life are associated with higher propensity to migrate. (2) Alternatives for rural youths who remain in the barrio are rather limited. For the out-of-school youth, the majority are not gainfully employed and are mostly unpaid family helpers on the farm and in household chores. Children who migrate and work away from home send cash contributions to their families. Being a domestic servant is one of the most predominant away-from-home jobs for females. (3) College education is the dream of most rural youths and of most parents for their children. College education is regarded as some kind of vague insurance for a better job and a better future. Going to school is also perceived as an immediate alternative to working as a useful way of occupying one's time, especially because gainful employment is not easily available. (4) Although the majority of rural youths have thought of farming as an occupation, it is not really a preferred occupation, and land is not always available for youths to farm. (5) Family incomes in the villages studied are low, but many parents consider the amount adequate to meet basic needs. Survival means adjusting their needs and desires to their income and having more than one breadwinner. Although most parents think that the life chances of their children would be better if they had fewer of them, there are some parents who believe differently. They cited that there are parents who have only one or two children but are still poor and, furthermore, fewer children means fewer breadwinners. (6) Parents consider the village as good enough for themselves but regard it less favourably for their children. The barrio as such is not all that bad but better opportunities can be found elsewhere. It is not so much the "push" of the barrio but rather the "pull" of the city which draws rural youths away from home.

Educational schemes for rural youths

Village-level studies of three types of high schools, the Barrio High School, the 2-2 plan, and the Barrio Development School, show that the fate of their graduates does not necessarily reflect curricular differences. In the 2-2 plan curriculum, those who pursue the vocational curriculum can in effect "have their cake and eat it too." The employment patterns of graduates who are working and the courses being taken by those who are studying do not differ despite the fact that one group pursues the vocational and the other takes the college-preparatory curriculum. In other words, the vocational graduates have no particular handicaps in obtaining entry into college-degree courses, but neither do they have any real advantage in terms of greater employability than those who graduate from the college-preparatory curriculum.

The Barrio High School has a built-in "success factor" because its main objective is to make high school education available to everybody regardless of economic conditions. There is no question that these high schools provide village youths access to low-cost secondary education near home.

On the other hand, the Pilot Barrio Development School has a built-in "failure factor" because it is envisaged as a secondary school program for village youths who decide to *stay, live,* and *work* in the barrio as farm operators. Furthermore, the ultimate measure of success set forth by the Barrio Development School is the *establishment of economic scale farming by the graduates.* These two objectives are both difficult to realize because whether or not village youths *stay, live,* and *work* in the barrio as farmer operators is determined by factors beyond the control of the school and its curriculum. From the follow-up of their graduates, *none* of them has become an economic-scale farm operator. Those who continued with their farm projects did so only as a side activity to their main job as hired farm labourer because the income from the project is not a sufficient source of livelihood. Furthermore, they have no land which can be cultivated or farmed on their own.

Among the graduates from the 2-2 plan and the Barrio High School who dream of going to college, only a few are actually able to do so. Their job opportunities are not much better than those who are out of school. Those who continue with vocational and college-degree courses will most probably find their future and their "fortune" outside

the village.

The related issues of education, training, employment, and migration

The outcomes of the three types of high schools mentioned and the assessments made of other in-school and out-of-school youth training programs do not provide very encouraging results on the relationship between secondary school curricula, training programs, and employment. There is a need, therefore, to reexamine the assumptions underlying the employment objectives of education and training programs. There are limits to what education and training can do to promote employment and, therefore, the fact that youths remain unemployed even after undergoing training, finishing high school (even with a vocational curriculum), or graduating from college cannot all be blamed on the school or the failures of the training program. It is not necessarily because our training and educational strategies are not effective but mainly because *employment-generation is infinitely more difficult to bring about than schooling or training*. A dramatic illustration of how government policy has significantly affected the employment situation for agriculturists is shown by the upward swing in the demand for agriculture graduates which has taken place without revisions in the curricula of agricultural colleges. The market for their services was stimulated by the many government programs for agricultural development.

Improving the quality of educational services in the rural sector can have three possible consequences: (1) Increased rural-urban migration because of improved potentials for college entry; (2) greater attractiveness of the rural sector to urban-educated development personnel who would not otherwise want to be rural-based; (3) if better-quality college education were available within the region or the province then it is not necessary to go to Manila. Youths educated in the province have a better chance of staying there to take locally available development jobs. However, it is too much to expect that the majority of rural youths would return after education to their village. The best that can happen is for them to make a shorter-distance move to an urbanizing area in the region, a provincial or town centre. Unless there is a major flow of development resources to the rural sector to counterbalance the lure of the city, there is no reason to expect a dampening of the movement to the metropolis and no human rationale for promoting a policy of keeping rural youth where they are.

CHAPTER VIII

EDUCATION, DEVELOPMENT, AND SOCIAL STRUCTURE

In the Philippines no social service or government institution reaches as many of our populace as the educational system. For many Filipinos, the elementary school might be the only significant social service that will benefit them in their entire life. Recently, however, education is increasingly being blamed for many of our societal weaknesses. At the same time, we are expecting formal education to accomplish development goals that many agencies have been specifically set up to do. In many ways, we pass on to the school system a number of development objectives which, for a number of reasons or by their very nature, are so elusive of immediate accomplishment. Whether it be a matter of cooperatives development, taxation, land reform, *green revolution*, population and sex education, and even sexual equality, we tend to think that the school system is the most strategic institution into which all of these different subject matters could be integrated. Because of this "ubiquitous" role which we assign to the educational system, we tend to restructure, reform, and renovate every time we identify problems which appear to be byproducts of the system. Quite often we think of the school as the shaper of attitudes, values, knowledge, and behaviour and seldom do we recognize that the structure, content, and functions of the school system are, in turn, determined by the society in which it exists. Although it is a very important "socializing" institution, the values and problems of the school reflect the values, problems, and structure of society itself.

One additional factor which contributes to the problems of education is that sometimes what the individual Filipino and his family wants from the educational system may not be the same as what society in general or what government expects from it. We are all aware that one generalization, which can be made about the Philippines without fear of successful contradiction, is the high value which Filipinos place on education, particularly higher education. The dream of every Filipino parent is to see his child obtain a college degree. It is regarded as a passport to upward social mobility - a hope for the future among the lower class. To farmers, for example, college education is their children's way out of farming, a way out of a poor and difficult life. Education is believed to be an avenue to a good job and carries prestige within itself. To the poor, higher education is their source of social equality with the rich, for he who possesses a college degree is almost always never lower class, although having a college diploma is neither sufficient nor is it a guarantee that he will make it to the upper class. To the Filipino and his family, therefore, education is an "investment" toward a better job, greater self-respect, and social esteem; and to the parents, educated children are a continuing source of security for old age.

On the other hand, the national leadership has asked that "education must be transformed so that it can become an instrument for the economic and social transformation of the nation" (228). The objectives of the Educational System in the New Society have been spelled out as follows:

"(a) to help develop a national consciousness that unifies all Filipinos while preserving and respecting their unique cultural ethnic identities,

(b) to develop Filipino citizens whose accepted values, attitudes and behavior are in accord with accepted values and levels of conduct in a society that seeks to implement accelerated program for socio-cultural and economic development; who know their duties and responsibilities as well as their rights and privileges in the New Society; and who possess the knowledge, skills and attitudes to respond positively to desirable changes in social and economic processes that are brought about by population pressure and technological change,

(c) to bring to the masses more opportunities for self-realization and to equalize educational opportunities at all levels of education, and

(d) to participate in economic development and in meeting the need for social services that are inadequately provided for " (113).

These objectives which have been set for the educational system are virtually synonymous with our societal goals and, since the school functions within a particular social structure, we have to view education as an institution that both influences and is influenced by economic, political, and social developments and by the nature of our own society. With such broad demands on and expectations from one social institution, it is not surprising that the quality of its performance is constantly being assailed. This chapter presents the following facets of education as it relates to development goals and social structure: (1) Schooling and the incidence of poverty; (2) literacy, participation in the school system, and educational attainment; (3) elementary and secondary educational results and socioeconomic status; (4) the teacher and the educational system; (5) college education and vertical social mobility; (6) education and employment; (7) agricultural education and agricultural development; and (8) nonformal education and the pursuit of development objectives.

Schooling and the incidence of poverty

Although many studies on income distribution have been done, Tan's analysis is particularly relevant to this chapter because of her findings that "the effect of education on income is the highest, followed in decreasing order, by occupation, geographic location by rural-urban and regional classifications, sex, sector of employment, intensity of work, age and migrant status." As shown in Table 121, the higher the level of schooling attained the lower the incidence of poverty. Among those who had no formal schooling or reached only elementary grades, the incidence of poverty is 80% and above. This goes down progressively as the educational level rises, so that for those who had 5 or more years of schooling the percentage who can be classified "poor" is only about 16%. Equally revealing is the observation that about 65% of the poor have had only elementary education.

In attempting to account for income inequality, Tan says that: "Inequality in earnings for different skills explains inequality in the distribution of family income. Inequality arising from the former is exacerbated by the inequality of wealth distribution in as far as an individual's ownership of wealth is positively related to his earning as is usually the case. This is because possession of wealth allows an individual to acquire higher and better quality education - be it formal or non-formal. It may also provide him with certain advantages in employment or in business through peer group association not otherwise available to his poorer counterpart in society...". Schooling, therefore, is related to income in two ways: (a) higher level and better quality education enables one to obtain a better job which earns higher income, but (b) higher-income groups have greater access to higher level and better quality schooling. The ILO Report likewise found that "by and large, age-specific earnings increase steadily with additional education, the rate of increase being generally faster the higher the level of education" (184, p. 314-315). Furthermore, although many college and high school graduates do not earn high incomes, their lowest incomes are still higher than the highest incomes of those with elementary schooling.

Literacy, participation in the school system, and educational attainment

One reason why people go to school is that they will learn how to read and write and not be called "illiterate" or "mang-mang" which is one of the worst and lowest forms of social label that anyone can have. Table 122 shows that the Philippines has done rather well in this matter. An analysis of literacy by age groups among the population 6 years old and over indicates continuously rising literacy rates, from age groups 75+ with 42% literate to 92.7% among those 15 to 19 years old. This means that the younger generation has quite an advantage over the older ones because so many more of them have learned to read and write than their parents and grandparents. Comparing the 1960 and 1970 literacy rates for the population 10 years and older, there has been an increase of more than 10 points from 72% in 1960 to 83.4% in 1970. Male-female differences in literacy have also narrowed considerably with almost a 16-point gap for the 75-year-olds to no difference at all among the 20-24-year-olds. For those who are 19 years or younger, the reverse has occurred with literacy among females being slightly higher than for males. Urban-rural differences in literacy rates are much larger than male-female differentials but even these urban-rural gaps have closed from an advantage of 27.8 points of the urban over the rural among the 75-year-olds to only 6.3 points among the 15-19-year-olds. Literacy, therefore, has become more equally available to both sexes and for both rural and urban inhabitants.

The Philippines also takes pride in its favourable school enrolment ratios. As

indicated in the percentage of the eligible age group in primary school, the proportion of our population who have gone to school is higher than Afghanistan, Bangladesh, India, Indonesia, Iran, Iraq, Burma, Laos, Nepal, Saudi Arabia, Thailand, and Syria. We lag a little behind Fiji, Hongkong, Singapore, South Korea, West Malaysia, Sri Lanka, Taiwan, and Turkey. But the Philippines also shows no apparent prejudice against the schooling of females, a phenomenon which is evident in countries such as Afghanistan, Burma, India, Iran, Iraq, Laos, West Malaysia, Nepal, Saudi Arabia, Syria, Thailand, Turkey, and South Vietnam (248).

This high participation in primary school is only part of the education story. Side by side with the high level of participation in the school system is the high drop-out rate. By the time 100 Grade I enrollees reach Grade IV only 65 of them are left; only 45 reach Grade VI; 16 survive to finish high school; and 11 complete a college degree (72).

The second part of the story is the rural lag in school participation. Table 123 shows us very clearly that, as of 1970, females have an advantage over males in being able to go to school for the age groups 6 to 14; but rural children, in general, are less able to attend school than urban children. More than 90% of urban children 9-11 years old are in school, but among their rural counterparts only 80% are able to do so.

For the country as a whole, out of 9.7 million children 6 to 14 years old, 37% or about 3.6 million were no longer attending school. The corresponding percentages for out-of-school youths 6-14 years old are 32.4 for urban and 40.4 for rural youths. Of greater consequence than these absolute figures are the comparative regional and provincial proportions of this young age group who are not in school. The most privileged regions in terms of school attendance are Greater Manila, Southern Tagalog, and Central Luzon (Table 124). The highest percentages for out-of-school youths are in Mindanao and Eastern and Western Visayas where more than 40% of 10-14-year-olds are not attending school anymore. But even these regional figures hide where the real problem lies. In Luzon, the provinces with the highest proportion of young people not attending school are Ifugao, 48%; Masbate, 43.8%; and Palawan, 41.8%. In the Visayas, these provinces are Negros Oriental, 46.5%; Western Samar, 44.9%; Northern Samar, 43.2%; Bohol, 42.5%; and Southern Leyte, 42.5%. In Mindanao, the worst provinces in this regard are: Lanao del Sur, 55.3%; Sulu, 50%; Cotabato, 48.8%; and Zamboanga del Sur, Zamboanga del Norte, and Davao Oriental, more than 46%. Obviously the holding power of the schools in these provinces is quite low. As revealed in many studies, financial difficulty is one of the most important reasons cited for children's dropping out of school. It is only to be expected, therefore, that there will be lower school attendance in places where incomes are lower.

Male-female and rural-urban differences in school attendance and literacy have narrowed down and, as a matter of fact, females have begun to show a slight advantage over males on both counts. For the younger age groups, there is higher literacy and higher school attendance than the older ones.

There has been considerable improvement in the highest grade completed, from less than 2% college educated among the 75-year-olds to more than 13% among the 25-34-year-olds (Table 125). A six-fold increase can also be observed for high school education, from 2.6 in the oldest age group to 18.6% among those 25-34 years old. Those without formal schooling declined from 58.8 to 9.9%. Again, urban-rural differences in education were more substantial (17% for college education and 15% for high school) than the male-female differentials which were quite small (1.3 and 4.8%, respectively).

What is disturbing, however, is the widening gap in educational attainment between the urban and rural population (Table 126). The magnitude of the urban-rural difference in the proportion of college-educated population is 4.5% among the 75-year-olds, but this rose to 11.3% among the 55-64; 17.9% among the 35-44; and then 21.2% among the 25-34. The same trend is evident for secondary education. We, therefore, have a situation where educational attainment has improved for everyone, but the urban have improved much more than the rural. For example, among the rural 75-year-olds, the proportion of college educated is 0.4. This went up to 1.6% for the 55-64 and 6.0% for the 25-34. This increase is very slow and very slight. The corresponding figures for the rural high-school educated are: from 1.1% to 4.2% for the 75 and 55-64 groups, respectively, and then 13.2% for the 25-34. Among the urban 75-year-olds, the proportion of college-educated is 4.9%; this went up to 12.9 for the 55-64 and 27.2% for the 25-34.

In the light of the earlier discussions on internal migration, it is very probable that the urban advantage in the proportion of higher educated population and the higher proportion of lower educated population in the rural areas is also a byproduct of rural-

urban migration, whereby the better educated among the rural population migrate to the city in search of job opportunities commensurate with their schooling. Thus the rural community remains deprived of higher educated citizens and have also a lower percentage of school attendance.

But all these numbers pertain to numbers of people who are in and who have been through the school system. They do not indicate quality of education received.

Results of elementary and secondary education and socioeconomic status

Because public educational expenditures account for one-third of the total government budget, 80% of which is allocated to public elementary and secondary schools, the results from such a sizeable investment are of tremendous significance. Besides the huge financial outlay involved, there are so many children who go through the system each year. In 1975-76, the total elementary enrolment was 7.64 million, 4.97 million (65%) for rural and 2.67 million (35%) for urban areas. For the same school year, 2.25 million students were enrolled in the secondary schools; of the total, 368 000 (16%) were in the barangay and 68 000 (3%) were in the agricultural high schools (268, p. 1-2).

The most comprehensive study of the results of elementary education was conducted by the Department of Education and Culture in 1974-75 using a sample of 5123 teachers, 545 school heads, 28 915 fifth and sixth grade pupils from 586 schools all over the country. The salient findings of this very valuable study, which relate to the problem of education and socioeconomic inequalities, are as follows:

(1) Using the criterion referenced academic achievement test, it was found that, on the average, elementary school graduates throughout the country are able to answer only half of the test items correctly. Besides the overall low level of performance, the subject matter areas that the sixth graders throughout the country seem to have learned least are the most basic and are traditionally known as the three R's - reading, mathematics, and language. Besides these rather discouraging trends, there are significant, consistent, and systematic differences in the levels of performance of pupils coming from different socioeconomic backgrounds. The average standardized scores for nine subjects (reading, language, pagbasa, wika, mathematics, science, social studies, work education and home economics) are higher for children from central or main school in the Poblacion or town proper than for barrio schools and higher for private than for central schools. In every subject tested, pupils from the barrio schools got the lowest average scores.

(2) This pattern of academic performance is not really surprising because, by all measures of socioeconomic status such as parents' education, family income, percentage who had pre-school education and exposure to mass media, the hierarchy is also from private to central, and then to barrio schools. For example, the proportions of children whose fathers had college education are 55, 21, and 8%, respectively, for the three types of schools. The corresponding percentages of children coming from families with P1000 or more monthly income are 3, 6, and 33. In other words, the over-all "learning environment," at least in formal schooling, is much richer for children studying in private than in central schools and better for those in central than in barrio schools.

(3) Of both immediate and long-run significance for every school child is the language used for instructional purposes. In the public school system, Pilipino is used as the medium of instruction in all subjects except science, mathematics, and language arts during the early years of elementary education. In the private schools, however, English is still used, in general, as the medium of instruction in all subjects except Pilipino. This public-private school differential in the implementation of the bilingual education policy means that those pupils in the private schools have an additional advantage on top of all the other socioeconomic advantages they have in life. The EDPITAF study noted that more pupils from private than from central and barrio schools reported ability to use English "better" than Pilipino. Public school pupils (both central and barrio) reported ability to use Pilipino "better" than English. Considering that English is the medium of instruction in high school and that the National College Entrance Examination (NCEE) is also administered in English, the graduates from public elementary schools have a built-in handicap which limits their access to and eventual academic performance in higher education schools.

(4) Comparisons between the standardized achievement scores of males and females showed higher female scores in six subjects but not in science, where the difference of males over females is only 0.1.

(5) Regional rankings on the basis of average achievement test scores showed the overall lead of Southern Tagalog cities, followed by Southern Tagalog provinces, Northern Luzon, Central Luzon, and Bicol. In general, Eastern Visayas and Mindanao yielded the lowest average achievement test scores (125).

For some indication of secondary education results, we examined high school seniors' performance in the National College Entrance Examination (NCEE) (38, p.1, 8; 142, 144, 147). The following observations are particularly relevant to our concern for the relationship between education, development, and socioeconomic status:

(1) The results of the 1973 NCEE examinations showed the consistent topping of Greater Manila Area in all the subtests with Central Visayas coming second and Eastern Visayas and Northern Mindanao occupying the lowest positions among the eleven regions. Even more significant than these regional variations is the difference in average standard scores between city and provincial schools in every region with the city schools consistently higher than the provincial ones. Just as in the elementary education results, students from barrio high schools obtained the lowest and private schools the highest average scores.

(2) Sex differences in the NCEE performance are very insignificant compared with the more substantial city-provincial and regional differentials. As expected, the percentage distribution of passing/failing examinees per region ranged from 86% passing among Greater Manila Area examinees; 81%, Central Visayas; to 67%, Northern Mindanao; and lowest, 66% in Eastern Visayas.

(3) Children of farmers, farm labourers, and fishermen showed the highest percentage of failing examinees (35%) and children of professionals, administrative-managerial, clerical, and sales workers had only 14 to 16% failing. In other words, percentage of failing examinees among children from farm families is twice as much as those from other occupational backgrounds. Performance in the NCEE and income class were also found to be positively related. In general, the higher the average family income, the higher is the mean general scholastic aptitude score. A similar trend was observed in the 1975 NCEE which reported that 46% of the examinees who had ratings of 90 and above came from families with a monthly income of P1000 or more. Of those who obtained the lowest rating, 20th percentile or lower, 68% came from the below P500 income group and only 9% were from the P1000 or higher monthly income bracket. More examinees from the low-income group failed to qualify for courses requiring at least 4 years of college studies. Of those coming from families with a monthly earning of P250 or less, 42% obtained ratings below the passing mark of 30th percentile; 31% of examinees from families earning between P250 to P499; only 22% from the P1000 to P1249 income class; and 14% of those from the P1250 and above. The lower the family income of the examinees, the higher the percentage of failure or inability to qualify for admission to 4-year college courses.

The results of both the SOUTELE Project (elementary education results) and the NCEE reflect the patterns of regional rural-urban, and socioeconomic disparities in the country. We, therefore, have to look at the educational system not only as a socializer of the young, but also as a product of society's characteristics in general. In an unequal society, we can also expect inequitable educational inputs and results, especially when some crucial educational policies are unevenly applied in different sectors.

The teacher and the educational system

As of 1970, the number of college graduates who had degrees in education or teacher-training reached 478 232, almost half a million, which was 44% of all college graduates. Teachers are predominantly female (76%) and, among professionals, they are the most widely distributed geographically. Although 72% of all college graduates are in the urban areas and only 28% are rural-based, only 59% of teachers are located in the urban and 41% are in the rural areas. In the majority of barrios all over the country, the teacher is the most highly educated member of the community and, quite often, the only professional working at the barrio level. It is for this reason that the public elementary school system and the teachers are usually regarded as the most strategic "delivery system" for practically all, if not all, of the development programs designed to reach the barrio. Manalang, in an intensive study of the barrio school, found the multiple roles which the teacher has to perform:

"A barrio teacher's life is overburdened with diverse and sometimes conflicting

activities. Aside from being instructor in a variety of subjects, supervisor of work education, recreation leader for pupils, disciplinarian and moralist, a teacher also struggles valiantly to be excellent fund-raiser, time-keeper, data-gatherer, accountant of school sales and commercial activities, tourist guide to important visitors and others. Under the present order, the teachers and the school system are expected to be indefatigable agents of social change, as conceived and directed by the bureaucracy in response to the demands of the national superstructure. The "in-school-off school" approach to optimum use of community resources, continuous progression scheme and work education emphasis are some of the new programs which teachers must fit themselves into to make schooling relevant to the goals of national development. In addition, there are other curricular imperatives, namely, the constitution and tax consciousness, cooperatives and land reform, population and nutrition education, production and the Green Revolution, Buy Filipino Movement, drug education and wise conservation and utilization of natural resources" (223).

The task of the public elementary school teacher (of which there are 400 000 in 1975), if taken seriously, is rather heroic. Who are these teachers and how are they responding to these multiple role expectations? The EDPITAF study which was cited earlier provides us with a profile of the teacher and the school head; some indications of teacher morale; teacher-community relations; and teacher-attitudes toward educational innovations (125).

About 80% of the teaching staff are female, 70% are married, and the average age is 37 years. Seventy-eight percent finished a 4-year college curriculum and more than 10% completed more than that. Because the teacher, especially in the barrio school, is almost always the most highly educated member of the community and because only 20% of their colleagues are male, there is a high probability that the single teacher will either remain single or, if she marries, she will marry "downward", educationally speaking. The single female teacher's social life, therefore, is filled with other female colleagues, school children, married men, and younger bachelors with less education than she has.

The school heads, on the other hand, are 43% male, 10 years older than the average teacher, and 21% have had more than 4 years of college. They have been in their present positions for an average of 8 years.

In formal degrees, our teachers and school heads are well-qualified, but more than 40% of them attended teacher-training institutions in the provinces, 26% in other cities, and only 23% in Greater Manila. Rankings in quality of training will most likely be from institutions in Greater Manila, followed by other cities, and lowest in the provincial ones.

Ethnically, the teacher belongs to the same group as her pupils and she can communicate very well with them in their dialect. Only 10% claim that they have little or no competence to use Pilipino as a medium of instruction. The rest think that their competence in Pilipino ranges from fair to excellent. During the past three years before the survey, nearly one-half of them had attended in-service training sessions in science, social studies, mathematics, English, and Pilipino; less than 30% did so in work education and home economics. Judging from their academic degrees obtained, their competence in Pilipino as a medium of instruction, and their exposure to new trends in different subject matter areas, our teachers appear to be well-equipped for their teaching job.

Considerably more discouraging are the results of school heads' ratings of school resource materials. Library resources; instructional materials for pupils' use such as supplementary books, workbooks and school magazines; teaching aids such as audiovisual materials and laboratory equipment are regarded as *"at best barely adequate."* Rated a little bit better, although far from satisfactory, are instructional resources for teachers' use such as courses of study, teachers' guide, etc. Because teaching must go on in spite of the dearth of school resources, more than one-half of school heads reported that teachers themselves provided school resource materials.

On the question of commitment to the school, the teachers find: working with school children interesting and challenging; co-teachers easy to get along with; school heads aware of their personal as well as work problems; community involvement in school activities; liking and respect from the community; and easy cooperation from parents. They do not get tired of teaching the same grade/subject from year to year. Less positive than all these items are that about 30% would like to teach in another school or community and the same proportion think that the community is indifferent to

innovations and projects in school. Most negative of all is the feeling of more than half of the teachers that their pupils cannot cope with the work in the grade.

In our desire to make the educational system an instrument for national development and in our search for relevance, the school system has become an arena for continuous reforms and curricular innovations, not only in content and medium of instruction, but also in teaching methodology and classroom management. Since the teachers are always at the implementing end of all these innovations, their reactions deserve serious consideration. Although the majority of the teachers agree that many teachers are not ready to implement educational innovations introduced in the field, they indicate a willingness to try them out if given proper orientation and guidance. Both teachers and school heads believe that there are so many innovations being introduced so fast that there is no time to implement and evaluate results. They also think that the daily school program is so crowded that teachers do not have time to try out innovations. Their suggestion was to have innovations tried out on a limited scale in pilot classes to determine feasibility before widespread adoption. Instructional innovations require additional materials, funds, and administrative changes if they are going to be adequately implemented. Because most schools are poor in resources, they are not equipped to take on additional burdens. It is worth mentioning here that about 40% of school heads are either undecided or do not agree that "innovations, being changes, are challenging, and that they keep teachers enthusiastic and interested in their school work." They are also undecided or do not agree that "innovations are new and better ways of solving recurring educational problems." These reactions, particularly from school heads, are very revealing of their misgivings on the value of educational innovations, both for teacher morale and for solving educational problems.

Despite the many demands the nation makes on our teachers, a career in teaching means a stable job, a regular salary, and a great deal of respectability. Teaching was such an attractive profession that by 1967 there were 290 teacher-training institutions which produced a total of 39 000 new teachers in 1967. Out of this crop of graduates only 22 000 were fully employed and only about 7000 found partial employment as substitute teachers. This meant a surplus of 10 000 which, when added to the carry-over surplus since 1961, created an unemployment figure of more than 70 000 teachers (111, p. 38). This glut in the teacher supply had its adverse consequence on teacher welfare. At present, they are the lowest paid of all professionals and, as mentioned earlier, they even have to provide their own school materials. Many janitors, clerks, and drivers in government offices make more money than teachers. This discouraging state of affairs seems to have been communicated effectively to parents and students as manifested in the rapid decline in enrolment in teacher-training colleges. In 1968-69, more than 31% of college students were in teacher training; this went down to 20% in 1970-71 and dropped further to 15% in 1971-72 (77). Now, teaching has lost much of its appeal to prospective students. A likely reduction in teacher supply could have at least three possible repercussions: (1) A more favourable reward system to attract and keep scarce manpower; (2) a rapid deterioration in the quality of the teaching staff would occur because young people would take teaching only as a last resort; and (3) with fewer teachers, the chances of luring them to the poor schools in the rural areas will be even less.

College education and vertical social mobility

The college enrolment ratio to population in the Philippines is reported to be as high as that found in many developed countries. Undoubtedly related to the demand for higher education is the great number of colleges and universities, totaling 601, out of which 576 or almost 96% are private schools. Of the 576, there are 261 sectarian (mostly Catholic but 30 are nonCatholic of which 6 are Moslem) and 315 nonsectarian schools. Of the latter, 86% are privately owned by stockholders and 14% are nonstock. The establishment of schools as business for profit of private enterprise is a very unique feature of the Philippine educational system. Numerically these schools are distributed across all the regions of the country, but the "prestige" schools are concentrated in Metropolitan Manila with no more than a handful of less luminous institutions located in the other big cities such as Cebu, Iloilo, Cagayan de Oro, and Dumaguete.

The geographic distribution of colleges and universities in the country is as follows (281): Greater Manila and Rizal, 116; Ilocos Region and Mt Province, 45; Cagayan Valley, 18; Central Luzon, 72; Southern Luzon, 59; Bicol, 8; Western Visayas, 46; Eastern Visayas, 59; Northern Mindanao, 62; Southern Mindanao and Sulu, 86. Because of the predominance of private colleges, more than 90% of college enrolment is found in this

sector.

The creation of all these institutions of higher learning is doubtless a response to the widespread demand for college education. In an attempt to comprehend this tremendous push for college education, we present findings from FAPE's analyses of about 300 000 NCEE 1973 examinees' responses to questions regarding their educational aspirations; the importance of college education for them; their reasons for going to college; sources of financial support for college studies; and their occupational or career choices:

(1) When asked about the highest level of education they want to attain, 87% indicated a college degree or higher. It is amazing that 18% of these high school seniors were already thinking of graduate studies, 5% of whom even mentioned a doctoral degree. Another relevant observation is that more of the females than the males aspired for a college degree or higher. More of the males preferred vocational/special training and some college, but not necessarily a degree (Table 127). College education was considered by more than 90% of the examinees as *very important* in making them achieve their goals in life (Table 128). Again, females gave greater importance to college education than the males. Furthermore, among those who failed to qualify for college, there were more who thought that college education was *not at all important*. This is understandable because those who failed to qualify are most likely those who have less chances to go through college successfully. But the most significant finding of all is the overwhelming importance these high school seniors attach to college education as a factor in achieving their goals in life. It appears, therefore, that inability to go to college would also be regarded as failure to achieve one's goals.

(2) To probe further into their motivations for going to college, let us look at the data on Table 129. The most frequently mentioned reasons are their belief that a college degree will increase their chances for getting a good job and that college will help them develop a meaningful philosophy of life. Equally important is parental desire for them to go to college. Peer group influence which comes from friends and relatives who are also going to college is another reason cited. Being offered financial assistance and having nothing else to do, and the desire to live away from home are other motivations. There is no question that the pressure to go to college comes from different sectors of a youth's social environment. The individual himself is "bombarded" from all sides by these social pressures. The fear of not getting a good job is an important consideration even from their parents' point of view because a college degree is almost always a requirement for entry into coveted occupations. One thing worth noting in Table 129 is that male-female reasons for going to college are practically the same. The only difference lies in the fact that fewer females than males (14.5 against 20%) mentioned wanting to live away from home as a reason for going to college.

(3) Financial support for college education is expected to come mainly from parents, but relatives are another source (Table 130). However, their motivation to pursue college education is revealed in their expectation to do part-time work; to use their own savings; and even to borrow money for the purpose. But more of the males than the females expect to resort to these three sources. It is not unusual for parents to work hard, sacrifice, so to speak, and for relatives to contribute toward this college education which promises a better life or a channel for upward social mobility, not only for the individual but also for the family. In some instances, the contribution from relatives is a reciprocal gesture or a return favour for a similar type of assistance received in the past from some member of the family.

(4) The outward and upward thrust of children's occupational choices is evident in Table 131. Although one-third of their parents are engaged in agriculture and fishing, only 3.4% of the 1973 NCEE examinees think of this as their most probable occupation and only 2.2% mentioned this as their most desired occupation. In effect, going to college is their way out of their parents' occupation.

The FAPE study likewise found that the most popular occupations among the male examinees are engineer (21.4%); soldier, navy, AFP (16.1%); technician, mechanic (5.8%); doctor, physician (3.7%); farmer, fishermen (2.8%); architect (2.6%); business executive (1.8%); accountant, auditor (1.7%); business proprietor (1.5%); and business salesman, buyer (1.5%). All these occupations represent 59% of the examinees' choices.

The occupations most popular among the female examinees are: nurse, midwife, laboratory technician (30.1%); educators (5.2%); cashier, accounting clerk (2.9%); nutritionist, dietician (2.9%); accountant, auditor (2.8%); clerk, office operator (2.8%); medical technologist, therapist (2.5%); doctor, physician (2.5%); social worker (2.2%);

and pharmacist (2.2%). The aggregate proportion of female examinees who chose these occupations is 56.1%.

The attraction to the health occupations such as nurse, midwife and doctor is no doubt related to the available job opportunities abroad for those who have been trained in these professions. Thousands of Filipino doctors, nurses, midwives, and medical technologists have found employment in the United States, Canada, West Germany, Holland, Iran, Nigeria, Papua-New Guinea, etc. Because they receive their pay in dollars which is quite substantial when translated into Philippine pesos, this overseas employment has lured many of our college graduates. One wonders, however, how long this job market will remain "open" because the United States and Canada have already started to tighten the rules for entry into their countries. We must recognize, however, that college students and their parents tend to respond quickly to the prevailing "market forces." They steered away from teacher-training when teachers became the lowest paid college graduates and gravitated toward the health occupations which became more lucrative.

Patterns of occupational choice by region do not differ very much except for Greater Manila (Table 132). More of the examinees from the Metropolis than the other regions chose arts and culture; business and clerical; engineering and technology; and physical, natural and social sciences. Less of them wanted to be in agriculture, public service, and personal services. The examinees from the 11 regions all indicated health occupations as their most popular choice with about one-third of them endorsing careers in this category; followed by public service; engineering and technology; and business and clerical occupations. The least chosen were the sciences and the religious and personal services. Only a little over 3% wanted to be in arts and culture and a similar proportion preferred agriculture and fishing. The unattractiveness of the sciences and of agriculture and fishing stands out in a predominantly agricultural country concerned with science and technology as a tool for development. The occupational preferences of our college-bound youths are not necessarily consistent with national development needs but they tend to conform to the nature of the general reward system.

When parents invest scarce financial resources to give their children a college education so that their life might be better than that of their parents, are they being irrational? Do their dreams for upward mobility find fulfillment? Some answers to this question are provided by Bacol's study using data from the 1968 National Demographic Survey which illustrates the role of higher education in occupational mobility (23). This study of married males between 25-64 years of age compared the occupational status of father and son and related this to the son's educational attainment. The author used six occupational categories on the basis of income, education, and prestige attached to the occupation. The categories were I, elite; II, middle class; III, upper working class; IV, lower working class; V, farm owners, fishermen and loggers; and VI, farm tenants and farm labourers. It is obvious that, in the first occupational category (the elite), more than 75% of the sons who belong to it have college education. Among the different occupational categories to which the fathers belong, there is a declining proportion of sons who have college education, from 63.1% for category I; 33.6% for category II; 17.2% for category III; 7.3% for category IV; 6.4% for category V; and only 1.5% for category VI. This means that sons of farm tenants and farm labourers have the least chance among all occupational categories of getting a college degree. Although college-educated sons of elite fathers did not all end up in the elite and middle class occupations, 87% of them did and no one landed in category VI.

Undoubtedly, social origin, i.e. father's occupation, has a reinforcing effect on the status of the son in the sense that it determines to a large extent how much education his son will have and eventually his occupational status. The proportion of sons who landed in the elite and middle class occupations declined from 62.8% among those whose fathers were in category I to 53.2% for those in category II; 22.5% for those in category III; 16.9% for category IV; 10.1% for category V; and only 5.2% for those in category VI. This suggests that sons of elite fathers have the highest probability of finding themselves in category I jobs and sons of farm tenants and farm labourers have the least probability of being blessed with a similar fortune. As a matter of fact, 66% of sons from category VI parents also ended up with category VI type of jobs. Although college education does not guarantee a son's entry into and establishment in high status jobs, it acts as a "cushion" against long distance downward fall from his father's position. Inability to obtain a college degree for sons of elite fathers contributes to a fall in their own occupational position. For example, although there are more sons of elite fathers who landed in category I occupations than the other occupational categories,

only 38.5% actually made it to their father's occupational class. Among those who fell out of their father's class more had less than college education. For example, 95% of sons of category I fathers who made it to category I occupations have college education; 99% of them who landed in category VI only had elementary and secondary education. No college-educated sons of category I fathers ever ended up being a farm tenant or farm labourer.

Despite the fact that college education tends to reinforce the existing social structure and strengthens the position of those in the upper and middle class, if one were looking for breakthroughs in the stratification system, college education acts as a wedge for the lower class. For example, among the children of farm tenants and farm labourers, only 1.5% had college education, but among them, 73% made it to the elite and middle class occupations. No one became a farm owner and only 6.7% became tenants and farm labourers like their fathers. Comparatively speaking, the proportion of college-educated sons of category I fathers who made it to category I category II occupations is 87%; 89.0% for category II; 65.8% for category III; 76.0% for category IV; and 76.2% for category V. Predictably, more of the sons of upper and middle class fathers made it to category I and category II occupations, but the role of college education in elevating the sons of farm tenants and farm labourers to elite and middle class occupations cannot be ignored.

Bacol's comparative sample of Manila sons and fathers provides us the following findings which add another dimension to the relationship between education and occupational mobility:

(1) For every category of father's occupation, more of the Manila sons have been able to go to college than the national sample shows (34.5 versus 8.3%). The tendency for elite and middle-class occupation fathers to have more college-educated sons than the lower-level occupations is as evident as for the entire country. However, a higher proportion of the Manila college-educated sons have been able to find jobs in the elite and middle-class occupational categories (86 versus 81%).

(2) The performance of tenant farmers' and farm labourers' sons in Manila is of particular interest because they are migrants to the city. Bacol's analysis showed that only 3.7% of them remained in the occupational category of their fathers. Less than 1% became farmer-owners, but 72% of them who were college-educated made it to the two upper-level occupations. No college son returned to his father's occupation. Obviously, those who had only elementary schooling ended up mainly in the working class categories. Although those who had secondary education were also in the working class occupations, more of them than of those with elementary schooling made it to the middle class. Migration plus higher levels of education has certainly taken them from the farm.

(3) Among the children of farm owners, only 3.8% returned to their father's occupation and this happened more with those who had only elementary education. In other words, the chances that a farm owner's son will go back to the farm are very slim if he obtains a college education. Only 2.3% of these college-educated farm owner's sons actually did return. Therefore, for the children of farm owners, tenants and farm labourers, a college education is a definite passport out of the farm. This, therefore, represents the fulfillment of farmers' aspirations for their children.

Because of the importance placed on college education and the role it plays both in reinforcing the existing social structure and in acting as a wedge of upward social mobility, admission to and graduation from the University of the Philippines becomes a "special" privilege. As the leading institution of higher learning in the country, the University stands at the apex of the educational system. Therefore, having access to the University and bearing the imprint of a University of the Philippines graduate is at a premium. An analysis of average earnings of 1961-69 graduates of the University and of private schools shows that in every field of specialization, whether it be education, business administration, engineering, physical sciences, liberal arts, agriculture and law, graduates of the University of the Philippines earn more than graduates from private colleges (319) which produce 90% of college graduates in the country. At this point, we should ask: "To what extent have students from different levels of society been able to share in U.P.'s high quality training?" A study of the distribution of the 1976 UPCAT (College Admissions Test) applicants for admissions reveals that (283):

(1) The higher a student's annual family income, the greater are his chances of being admitted into the University of the Philippines with 40% of those who qualified for admission coming from families with annual incomes of at least P20 000.

(2) The majority of the students who applied as well as of those who qualified come from private schools. They register greater chances of qualifying for admission than students from public general schools, public vocational schools, and public barrio schools. Only a negligible minority of the students who applied and who qualified come from barrio schools.

(3) As expected, Metro Manila students constitute the largest group of those who qualified and those from the rural areas register the least chances of qualifying for admission.

(4) Those who qualified for admission tended to be children of college-educated professionals, with children of farmers and fishermen exhibiting the least chances of qualifying for admission . In general, the study concludes that: "The present admission criterion of the University discriminates against poor families in favor of rich ones; against public high schools in favor of private ones; against rural students in favor of Metro Manila students; against farmers, fishermen, production-process workers and manual laborers in favor of professionals and executives; against students whose parents have had very little education in favor of students whose parents are themselves college graduates."

(5) The studies revealed that annual family income is the primary socioeconomic determinant of a student's chances of admission into the University. Table 133 very clearly shows that UPCAT qualified students come mainly from the highest income groups, while the Philippine population is concentrated more in the lower income end. The NCEE qualified examinees tend to be more equally distributed among the different income levels than the students who qualified for admission to the University of the Philippines. Among the latter, more than 42% come from families with annual incomes of P20 000 and above.

It is rather ironical that the University of the Philippines which prides itself as the bastion of "liberalism" in the country has actually become a near exclusive institution for the children of upper socioeconomic families. But it is not this "exclusiveness" *per se* which is socially disturbing but rather the fact that, as a tax-supported institution, each student is subsidized by the University to the tune of approximately P1650 per semester or P3300 per year. In other words, it is the rich student, in effect, who receives the subsidy. This is not to say that the University is to be blamed entirely for this state of affairs because we have seen earlier in this chapter that, from the elementary grades to high school, all the advantages accrue to children of better-off families from private and urban schools. Again, the results of elementary and high school education and certainly access to the "best quality" college training reflect to a large extent the existing inequities in income distribution, resource allocation, stage of development, and rural-urban differentials. The rural farm families who have the highest incidence of poverty are also the least blessed with opportunities to benefit from better quality schools.

Perhaps rural-urban inequality of access to college education would be mitigated if college graduates served the rural areas. Unfortunately, this mitigating factor is only marginally existent. In Table 134, it can be seen that 72% of the population with college degrees are located in the urban sector and only 28% are rural-based. Although graduates with degrees in education and agriculture can be found more in the rural areas than other fields of study, 60% of them are also urban. The highest proportion of college graduates, 44%, have education degrees and about one-quarter are holders of degrees in the social sciences, 83% of whom have a B.S. in Commerce. Therefore, almost 70% of all college-degree holders in the country are in education and commerce. What is interesting is that about 56% of all college graduates are females. The most female of all fields of study are: education, medical sciences, and natural sciences. The most predominant professionals are the teachers who are mostly females and are spread out in rural areas more than any other field of study. In short, of all college graduates, female teachers are the only significant group of college graduates who render direct service to our villagers through the rural schools.

Education and employment

Since the amount of schooling is one of the basic desiderata for occupational placement, we would expect a relationship between education and employment. Table 135 shows that the unemployment rate rises with level of schooling, with the highest unemployment reported for high school graduates and those with 1-3 years of college. This rate goes down for those who have college degrees or more, but unemployment is still

higher for them than for those who have no schooling or have reached only grades one to four. Given these figures, one gets the impression that, if one wants to improve his chances of getting employed, he should have little or no schooling! This impression, however, is a fallacious one because it does not take into account the fields of specialization that have higher employment prospects than others. Second, it does not consider the nature of the occupations which the different educational groups found. Third, it does not indicate how long a college graduate remains unemployed before he eventually finds a job.

Raymundo's study using data from the 1968 National Demographic Survey (232) found that engineering and technology, liberal arts, social sciences, business, and education are the fields reporting higher unemployment rates. The medical and paramedical sciences registered the lowest. Furthermore, almost 80% of degree-holders in engineering and technology; medical and paramedical sciences; natural, physical and related sciences found jobs in the professional, proprietor-manager categories. It is also significant to note that the fields which showed the least success in making it to the professional occupations are liberal arts, business, education, etc. and they also contributed most to the ranks of clerical workers. From the point of view of the individual, is this a wastage? The likely answer is "No" because he would have had lesser chances of obtaining even that clerical job if he had less education.

With respect to time spent looking for work, Raymundo found that 70% of the unemployed college graduates spent less than 5 weeks looking for work before they found a job. In other words, their unemployment is a temporary state. When one looks at visible underemployment, only 21% were working below the 40-hour frame of reference and would like additional work. Of the underemployed wanting more work, 79% were already working 40 and more hours per week. Furthermore, among the employed professionals, including total visible and invisible underemployment, only 21% were working below the 40-hour frame of reference and would like additional work. Of the underemployed wanting more work, 79% were already working 40 and more hours per week. Furthermore, among the employed professionals, total visible and invisible underemployment amounts to about 18%. The rest reported no underemployment. The fact that even those working beyond 40 hours a week still want additional work is probably a reflection of desire for more income rather than for more work per se. From the studies of Bacol and Raymundo, one cannot conclude that parents and their children are irrational in their decision to aspire for and invest in a college education, because from most indications it is worth it. Unless educational qualifications for employment change, it is impossible to discourage parents and their children from their dreams of a college education. However, as data on Table 135 indicate, it is important to be a degree-holder and not just a person with some college education because the diploma makes a great deal of difference in obtaining employment.

Agricultural education and agricultural development

If Philippine agriculture has not developed farther than it has, lack of agricultural schools cannot be blamed. At present, there are 87 agricultural high schools, 41 fishery schools, and more than 40 colleges and universities offering college degrees in agriculture. In 1970-71, the total enrolment in agricultural high schools was about 36 000 and more than 11 000 in schools of fishery (272). For the colleges of agriculture, the enrolment increased from 3540 students in 1963-64 to 28 069 in 1973-74. This represents an increase of almost 700% over a 10-year period. The number of graduates during that same period rose from 1050 to about 3057, an increment of almost 200% (208). The 1970 census reported a total of 17 363 agriculture college graduates in the country. Leonor estimates that from 1970 to 1975, another 10 781 have been added to this supply, thus producing an aggregate figure of 28 144 which, if deployed equally all over the country, would mean practically one agriculture graduate per barrio. But like most everything else in the Philippines, agriculture graduates are unequally distributed. Leonor found that as of 1970 almost one-half of the total population of well-trained manpower in agriculture are in Southern Tagalog and Central Luzon or the provinces surrounding Manila, including the city itself. These two regions have almost 70% of the agriculturists in the country with postgraduate degrees; 46% of those with a Bachelor's degree and 44% of those with a 2-year post-high school diploma or Associate in Agriculture. A further evidence of this concentration is that one-third of them are in Manila, Rizal, and Laguna. In terms of rural-urban distribution, 60% of them are located in the urban and only 40% in the rural areas.

Ninety-three percent of those with Bachelor's degrees are working with different

government agencies; the remaining are in schools. Among those with postgraduate degrees, 71% are employed in schools and only 19% in government agencies; the remaining are with private firms. The number of them engaged in actual farming is very negligible. Among graduates of agricultural high schools, the majority do not go into farming either and, if they do, it is not necessarily a matter of preference. They use agricultural high schools to obtain a relatively inexpensive pre-college preparation. For the government, however, providing vocational agriculture costs about three times more than the general secondary curriculum (65).

Although the enrolment in agricultural colleges has increased rapidly in the past ten to twelve years, this number makes up only 2% of the total collegiate population. College graduates in agriculture constitute 1.6% of all degree-holders. As of 1970, the attractiveness of agriculture as a career has only improved slightly with 3.4% of 1973 NCEE examinees mentioning agriculture and fishing as their most probable occupation, but only 2.2% considered it their most desired occupation. Leonor found that the higher the general scholastic aptitude score of the student; the higher the income of the household he comes from; and the larger the community in which he lives, the less likely he will choose agriculture. However, parental schooling has a positive influence on children's choice of agriculture (208). Altogether, this might be interpreted as a desire on the part of middle-class parents from small communities to have their lower ability children take up agriculture instead of other courses. Such an interpretation might not be completely unwarranted because it is not unusual to hear parents say to their "less bright" child: "Agriculture na lamang ang pag-aralan mo." (You just take agriculture). The implication is that agriculture fits those who are less intellectually endowed. Relative to other professions, therefore, agriculture remains unattractive. This is understandable because the average earnings of agriculture graduates from 1961-69 is second to the lowest - the grade school teacher (319). In 1974, more than 6000 new positions were created by different government departments requiring agriculturists. This new demand, while the present supply is still short, could increase the market value of agriculture graduates and perhaps make agriculture a more lucrative and, hence, more attractive field. On the other hand, it may not take long to produce the needed manpower, considering the number of schools producing them. A glut in the labour market for agriculturists is not likely to change the reward system in their favour.

Agricultural education is a big national program, but the production process in farming is mostly in the hands of people who have low educational attainment. As mentioned earlier, the majority of the agricultural high school graduates proceed to college and the college graduates are employed mainly by government agencies and educational institutions. Agriculture graduates are, in effect, white-collar workers; they are not farmers. In the meantime, dotting the countyside across the length and breadth of the Philippines are millions of farmers and farm labourers who manage to extract a living from the soil. As of 1975, the agricultural labour force was estimated to be more than 7.7 million, making up more than 53% of the total labour force. The median highest grade completed for persons in the rural labour force is Grade IV. But about one-quarter of the rural population 25 years and older have not had any formal schooling and, in general, those engaged in farming and related occupations have the lowest educational attainment among the different occupational groups. The basic tools for learning about modern farming are contributed most likely by the primary school and there is also tradition, experience, and the school of "hard knocks." The greatest challenge to creativity and serious effort in education for agriculture lies in the transformation from low-income, low-productivity farming to higher income, higher productivity agriculture if we are to achieve a better quality of life for the rural poor.

For the agricultural education system to have an impact on agriculture, there must be a way of linking the agriculturally educated with the farmer-producer. There are at least two avenues for establishing these links: one is through the products of agricultural research and the second is via agricultural extension or other strategies designed to bring the results of research to the farmer-producer. Unless these two things are accomplished, agricultural education will have only an academic and marginal relationship to agricultural development. So far, the greatest contribution of agricultural education lies in the results of research, which unfortunately will remain scientific achievements rather than productivity realities unless they reach the farmers and are applied so as to substantively affect production.

Nonformal education and the pursuit of development objectives

Given the massive educational enterprise and the heavy public and private expenditures in schooling and in the school system, the major and immediate problem area in education does not seem to be the educated unemployed but rather those who are "little educated, little employed, and little paid," but who are no longer in the school system and can only benefit indirectly, marginally, or even remotely from whatever educational reforms are taking place or being contemplated. As shown in Table 125, 20% of our population 25 years and older have no schooling at all and 56% have some elementary education only. They are the people of today who are the most strategic targets of development efforts, whether it is in terms of increasing productivity, improving employability, enhancing their opportunity to enjoy more of life's amenities, or of increasing their life chances in general. It is toward these ends that educational inputs other than that of the school system have been utilized. Such inputs have been labelled differently depending upon who baptizes them, but because of certain common characteristics they can be more fruitfully conceptualized as "education" of a special kind.

Nonformal education for development is a deliberate, more or less organized set of activities designed to bring specific "messages," knowledge, skills, new experiences, and even new "values" to a particular target population. Such "messages" and learning experiences are aimed at bringing about attitudinal and behavioral changes which are defined as desirable by society if development goals are to be achieved. This educational effort may be organized by established institutions and agencies, government, private, or voluntary, but its peculiar character is that it is conducted outside the formal system although the facilities and resources of the school may be harnessed in carrying out its activities. Unlike the conventional school system, however, participation in these activities is very much dependent on the willingness of the intended "learners" to be involved and on their recognition of the benefits that they will derive from such involvement. As a matter of fact, it has been argued that: "the economic merit of non-formal education is precisely that it is demand-oriented: it responds to the demand of people for knowledge and skills as these make themselves felt in their daily lives" (184). Unlike going to school which is almost always defined as "a good thing," the value of nonformal activities has to be "demonstrated" to be appreciated. Its value is judged on the basis of direct and immediate implications for the life of the recipients. "What is in it for me that is worth my time and energy?" is an inevitable question that every nonformal educator is asked when he attempts to "recruit" participants to any of his sponsored activities. These undertakings are not a preparation for life as formal schooling is often referred to. Nonformal education is life itself. The attainment of relevant attitudinal and behavioral changes means taking real-life risks, not simulated risks. As one farmer puts it: "If a pupil makes a mistake in his arithmetical calculations, he can always erase and start all over again or, at worse, he could get a low grade. But if a farmer makes a mistake in his decisions on farming operations, it will cost his family their livelihood and food supply." The requirements for effective nonformal education are more demanding of the "educator's" imagination, creativity in adopting to idiosyncratic situations, and dependable presence during the risk-taking process. In reality, all attempts of this kind are wittingly or unwittingly designed to increase the potential recipient's repertoire of alternative courses of action which will stimulate or enhance the decision-making process with respect to how he wants to order his life. Without alternatives that are recognized and made meaningful to the individual, there is no decision-making for there are no choices. For example, a farmer has only used seeds from his existing rice crop, but now an agricultural worker can offer him 3 or 4 other types of seeds with varying characteristics. The couple who have always accepted children as God's Will now have a choice of intervening with this Will. He also has a further choice as to how he may want to intervene in this process. Before, a man had no recourse but to use credit from the traditional money lender, but it is now possible for him to borrow money from other sources provided certain requirements are complied with. Although society may have all these available alternatives, they do not constitute viable and real alternatives to an individual unless they are brought into his decision-making framework and have become actual choices for him. The task of nonformal education in this regard is, therefore, to present these alternatives in such a way that the benefits expected from their choice outweigh those accruing from the traditional means of solving problems. The old age dictum of "to see is to believe" is still as potent now as it has ever been. Unfortunately, some of the desired outcomes of nonformal education are not readily and immediately visible and are, therefore, more difficult to put across. The effects of the applied nutrition program, for example, are not as obvious as the

performance of a new rice and corn seed. Even the concept of family planning as a "negative production" process is not easy to grasp. What would a family gain by not having children or not having as many children?

Nonformal education deals with the "here and now" problems, the solutions to which will shape the future. Again, to illustrate, the incorporation of population education in the existing curricula is indeed a laudable move, although it is not likely to affect the fertility and family behaviour of those who are currently in the reproductive age but not in school. Therefore, one has to institute other means of reaching them. To dramatize the urgency and practicality of this learning: a woman, who goes to a mother's class in the morning to learn about family planning among other things, but fails to apply or applies erroneously in the evening what she learned in the morning, could immediately reap the repercussions of the failure to learn or to correctly apply what she has learned. Nine months later, she contributes a sixth child to her family when she had wanted to stop at the fifth.

Programs in agricultural extension, family planning, applied nutrition, cooperatives, farmers' associations whether in *seldas, damayan,* compact farms, or *samahang nayon,* land reform, community organization, health and environmental sanitation, and even the new social discipline considered so crucial to the restructuring of society are types of nonformal education for development. The strategies and tactics applied in these programs range from the use of full-time paid workers to the use of posters, leaflets, radio, and television programs. They vary in effectiveness in achieving desired results, such as increased yield, lowered birth rate, more attractive communities, and a social conscience. Incidentally, these programs are not aimed only at those who have low-level education because change quite often requires changes in the change agent. For example, on the assumption that one cannot teach what he does not know, the rice production program has purposely included an indispensable component of teaching how to actually grow rice from land preparation to harvesting. This was brought about by an earlier discovery that college graduates in agriculture have never grown rice. Incidentally, expertise in one's subject matter is highly respected not only in the academic world but in the world of farmers, housewives, and villagers. It is for this reason that personnel of agencies engaged in nonformal education need to possess expertise and to upgrade their knowledge and skills. The improved quality of performance applies not only to their clients but also to themselves. Again, unlike the conventional school system where the measure of learning is the amount of knowledge retained as revealed in the examination, in nonformal education the ultimate test lies in whether knowledge gained and favourable attitudes acquired are put into practice. Large doses of the first two without inroads into the third lead to no reduction in population, no improvement in nutrition, no increment in exports, and finally, a verdict of *no learning.* Nonformal education cannot result in behavioral change unless the wherewithal for change is present. For example, supervised credit as a nonformal educational activity is impossible without actual credit being provided.

In the Philippines today, there is a plethora of activities in nonformal education as defined above, but *ad hoc* evaluation studies indicate that these efforts are neither sufficient nor are they as effective, as sustained, and as systematic as they could be. For instance, although contact with expertise in rice and corn production has very positive influences on the adoption behaviour of farmers, it is also a well known fact that the amount and quality of exposure that farmers receive from "educational" inputs are far from satisfactory. The payoff from nonformal education is not in numbers of diploma-holders but in terms of more rice, fewer babies, better nourished families, more functional cooperatives, etc., all of which are very tangible measures. This is probably the essence of nonformal education that is distinct from formal schooling. It is not merely education for knowledge but education for behavioral change, for getting things done.

Programs in nonformal education for development should be recognized as legitimate educational investments which deserve sustained and substantial support from all quarters and should not be left to chance and sporadic initiative from partially interested sectors of society. They should not be treated as welfare or charity but as a developmental function. But most of all, formal schooling needs to profit from the experiences in nonformal education so that the lessons learned can be fed into the existing school system. This could pave the way for a more dynamic and true-to-life content of formal education. For a start, existing colleges and universities (601 of them) could embark on nonformal education programs, as illustrated by colleges of agriculture which carry out agricultural

and rural development projects and colleges of medicine which have comprehensive community health programs. However, the feedback from the experiences in nonformal to the formal school system has to be maximized to have a significant impact on curriculum content and on the faculty itself. This type of exposure could revolutionize the academician's worldview so that he does not continue to live as an *Academic Hermit* (a literate person with a limited amount of nonabstract experience). As Owens asks: "Can a person live on abstract or vicarious experience alone? Is a person who has had a strictly abstract upbringing adequately prepared to cope with the responsibility of solving the social and economic development problems we face today?" (253).

The feedback flow has always been one-way, from academic to the "real world," and seldom the other way around. To systematically pursue a two-way feedback, we need research and evaluation studies and experimental action programs using a variety of strategies for the different subject matter concerns of nonformal education. Furthermore, because most programs in nonformal education use college graduates, an expansion and intensification of these programs would create more productive employment for them and might help reorient college education away from the strictly *white-collar* and *verbal culture* so characteristic of our college education.

Finally, because of the distributive implications of nonformal education, there should be deliberate attempts to direct and locate as many of them as possible toward the relatively disadvantaged places and among the less privileged population, although the gains from these sectors may be slow and small in the beginning. Nonformal education is neither cheap nor easy but, for the present, there is no viable alternative for enabling the more deprived sectors to participate in the benefits of development (73).

SUMMARY AND CONCLUSIONS

One generalization which can be made about the Philippines without fear of successful contradiction is the high value which Filipinos place on education, particularly higher education. It is regarded as a passport to upward social mobility - a hope for the future among the lower class. On the other hand, the national leadership has asked that education be transformed so that it can become an instrument for the economic and social transformation of the nation. Because the school system is the most widespread of all government social services, it is used as a channel, a base, or even an implementor of many development programs designed by government agencies at the national level. Given the family's expectations of the school and society's demands on it, the educational system finds itself constantly being assailed and continuously being "reformed." This chapter presents the following facets of education as it relates to development goals and social structure: schooling and the incidence of poverty; literacy, participation in the school system and educational attainment; elementary and secondary educational results; the teacher; college education; education and employment; agricultural education and agricultural development; nonformal education and the pursuit of development objectives.

Schooling and the incidence of poverty

Studies on income distribution have shown that education has the highest effect on income; followed by occupation; rural-urban and regional location; sex, sector of employment, intensity of work, age, and migrant status. The lower the level of schooling attained, the higher the incidence of poverty.

Literacy, participation in the school system, and educational attainment

On the whole, the Philippines has shown definite improvements in educating its population. So far, male-female and rural-urban differences in school attendance and literacy have narrowed down and, as a matter of fact, females have begun to show a slight advantage over males on both counts. For the younger age groups, there is higher literacy and higher school attendance than the older ones. There has been a considerable increase in the highest educational attainment among the population 25 years old and over, but the gap between the urban and the rural population has widened. In other words, we have a situation where educational attainment has improved for everyone, but the urban

has improved much more than the rural. All these pertain to numbers of people who are or who have been through the school system. They do not indicate quality of education received.

Results of elementary and secondary education

A comprehensive study of elementary education results shows an overall low level of performance, and the subject matter areas that the sixth-graders seem to have learned the least are the most basic, the 3 R's and language. Another discouraging trend is the significant, consistent, and systematic differences in the levels of performance of pupils coming from different socioeconomic backgrounds. Children from private schools have the highest scores, followed by those from the public central schools at the town proper or poblacion, and lowest scores are obtained by pupils from the barrio schools. This pattern of academic performance corresponds to all measures of family socioeconomic status. The hierarchy is also from private to central to barrio schools. More pupils from private than from central and barrio schools report ability to use English better than Pilipino. Considering that English is the medium of instruction in high school and college and that the NCEE is given in English, the graduates from public elementary schools have an additional built-in handicap, partly due to the fact that private schools still use English while public schools have a bilingual education policy. Regional rankings show the overall lead of Southern Tagalog and the lowest scores are for Eastern Visayas and Mindanao.

Using the NCEE results as indicators, similar trends for secondary education as for elementary education are evident. Greater Manila consistently topped in all of the subtests, with Central Visayas coming second, and Eastern Visayas and Northern Mindanao coming last. City schools performed consistently better than provincial schools; private schools better than public ones; and barrio high schools obtained the lowest scores. Performance in the NCEE and income class were positively related. Children of farmers, farm labourers, and fishermen showed the highest percentage of failing examinees, twice as much as those from other occupational backgrounds. In both the elementary and secondary education results, male-female differences are very insignificant.

It is obvious that educational results reflect the patterns of regional, rural-urban, and socioeconomic disparities in the country. In an unequal society, we can also expect inequitable educational inputs and results, especially when some crucial educational policies are unevenly applied in different sectors.

The teacher

As of 1970, there are almost half a million college graduates, predominantly females, with degrees in education or teacher-training. They make up 44% of all college graduates and are the most widely distributed of all professionals. In the majority of barrios all over the country, the teacher is the most highly educated member of the community and quite often the only professional working at the village level. It is for this reason that teachers are regarded as the most strategic delivery system for practically all development programs designed to reach the barrio. This results in the teacher being expected to perform multiple roles in addition to that of her classroom responsibilities. They appear to be well-equipped for their teaching job, judging from their academic degrees obtained, their competence in Pilipino as a medium of instruction, and their exposure to new trends in different subject matter areas. The inadequacy of school resources in materials is the most discouraging part of the job because many teachers have to provide materials themselves. Despite this, they seem to have a commitment to the school and the community. Their most negative assessment of the school is expressed in the feeling that their pupils cannot cope with the work in the grades.

Regarding the continuous reforms and curricular innovations, teachers believe that there are too many innovations being introduced too fast, especially with meager resources, overcrowded programs, and lack of time to prepare for them. In the past teaching was such an attractive profession that there was a substantial surplus in 1967. From that time on, teaching has become unattractive and enrolment in teacher training has dropped considerably. Teachers are at present the lowest paid of all professionals. Many janitors, clerks, and drivers in government offices are paid better than teachers.

College education and vertical social mobility

The value which Filipinos place on college education is evident in the high

college enrolment ratio to population and in the 601 colleges and universities in the country. A college degree is regarded by high school students as very important in enabling them to achieve their goals in life and in increasing their chances of obtaining a good job. Parental desire for them to go to college is likewise very strong. When asked what sources of financial support they expect for college education, the great majority of 1973 NCEE examinees mentioned parents. But the strength of the motivation to pursue college education is revealed in their plan to do part-time work, borrow money, or seek a relative's aid. Their occupational choices tend to be oriented away from agriculture and fishing (which most of their parents had) and directed toward health, public service, technical and engineering fields. The overwhelming choice of health occupations such as nurse, midwife, laboratory technician among the female students reflects the available job opportunities abroad for these fields. Only 3.4% wanted to take agriculture and fisheries and even less chose the sciences. This unattractiveness of the sciences and agriculture stands out in a predominantly agricultural country concerned with science and technology as a tool for development.

A study of the role of college education in occupational mobility shows that, although it tends to reinforce the existing social structure and strengthens the position of those in the upper and middle class, college education acts as a wedge for the lower class. Among children of farm tenants and farm labourers, only 1.5% had college education but, among these, almost three-quarters made it to the elite and middle class occupations. On the other hand, inability to obtain a college degree for children of elite fathers contributes to a fall in their occupational position.

Because of the importance placed on college education and the role it plays in upward social mobility, admission to and graduation from the University of the Philippines, which is at the apex of the educational system, becomes a special privilege. As a tax-supported institution, it has actually become a near exclusive institution for the children of the upper socioeconomic families because those who are able to gain admission tend to come from such families. Consequently, the better-off children enjoy government subsidy. This is not to say that the University has deliberately discriminated against children of the lower class, but that the latter are disadvantaged with respect to sociocultural-economic backgrounds and have less access to better quality elementary and secondary education. Therefore, they are less likely to pass the entrance examinations. Rural farm families are the least blessed in this regard.

Perhaps rural-urban inequality of access to college education would be mitigated if college graduates served the rural areas. Unfortunately, about three-quarters of college-degree-holders are located in the urban sector, and teachers, mostly females, are the only significant group of college graduates who render direct service to our villagers through rural schools.

Education and employment

Unemployment rates by schooling show a higher rate of unemployment among those who have high school education and for those who have gone to college but did not finish, and the lowest rate for those who have no schooling. This is not to say that, if one wants to be employed, it is better not to go to school. As pointed out earlier, college graduates get better paying jobs. A study of employment among college graduates shows that most of them find jobs in the professional-proprietor-manager categories and some join the ranks of clerical workers. Unemployment tends to be a temporary state, while looking for a "suitable" job. Only one-fifth are underemployed (working less than 40 hours a week), and those wanting additional work probably do so for more income rather than for more hours of work. From the evidence of this study and an earlier study on occupational mobility, it would seem that parental investment in college education is worthwhile. But being a degree-holder is more important for employment than having an "unfinished" college education.

Agricultural education and agricultural development

Agricultural education in the Philippines is a big national program with numerous agricultural high schools and agricultural colleges and universities, but the production process in farming is mostly in the hands of people who have low educational attainment. Although enrolment in agricultural colleges has increased rapidly in the past decade, they make up only 2% of collegiate population, and agriculture graduates make up only 1.6% of all degree-holders. These graduates, who are employed mainly by government

agencies and educational institutions, are white-collar workers, not farmers, with almost two-thirds of them urban-based. Those with graduate degrees are concentrated in Greater Manila, Southern and Central Luzon. Consequently, the agricultural education system could have an impact on agriculture mainly through agricultural research and its dissemination to the farmer-producer, so that the products of research could be applied to substantively affect production.

Nonformal education and the pursuit of development objectives

Despite the magnitude of our educational system, the majority of our adult population have had only elementary education or no schooling at all. They are the most strategic targets for development efforts. Educational inputs other than that of the school system are being utilized in order to reach them. These activities commonly labelled as nonformal education for development are designed to bring specific "messages," knowledge, skills, new experiences, and even new values to a particular target population. Unlike the conventional school system, participation in these activities is very much dependent on the willingness of the intended "learners" to be involved and on their recognition of the benefits that they will derive from such involvement. In nonformal education, the ultimate test of learning is whether knowledge gained and favourable attitudes acquired are translated into practice. Programs in agricultural extension, cooperatives development, applied nutrition, family planning, etc. are types of nonformal education for development. They should be recognized as legitimate educational investments which deserve sustained support. But most of all, formal schooling needs to profit from the experiences in nonformal education so that the lessons learned can be fed into the existing school system. This could pave the way for a more dynamic and true-to-life content of formal education and could revolutionize the academician's worldview so that he does not continue to live as an *Academic Hermit* (a literate person with a limited amount of nonabstract experience).

CHAPTER IX

TECHNOLOGY TRANSFER IN AGRICULTURE AND FAMILY PLANNING

In the process of looking for a better quality of life for our people, in attempting to solve the problems of poverty, unemployment, and inequality, and in trying to bridge the gap between the rural and the urban sectors of society, *technology* as a byproduct of research and the application of science is used as a major instrument for achieving our development goals. The two most crucial problems we have at the moment are food and population. Both are concerned with productivity but with a difference in direction: The first is *positively oriented;* whereas, the second is aimed toward *negative production.* For the former, we definitely need and want an increase and, for the latter, we are working toward a decline in growth rate or at least stabilization. For these problem areas, we have different agricultural technologies and different types of family planning techniques. But for food supply to actually increase, improved agricultural technology has to be communicated, diffused, accepted, and effectively applied to farmers' fields. Similarly, population control measures need to be practiced in order to effect family size limitation, child-spacing, and hopefully reduce the rate at which our population is multiplying.

To illustrate the interrelationship between food production and population, data on total rice production and population from 1949-75 are given in Table 136, which reveals rather discouraging trends: Population has increased every year, but rice production has suffered six lapses (drops in production from one year to the next) for the 27-year period. For example, the worst production setback recorded was the drop from 115.9 million cavans in 1971-72 to 100.3 million in 1972-73. When such calamities occur, production efforts have to be at least doubled because of the need to meet the twin demands of making up for the previous year's loss as well as producing enough to feed the increased population for the current year. Considering the magnitude of these two demands, the resiliency of the rice production system is worth noting. From the 100.3 million cavans of rough rice produced in 1972-73, 127.1 million cavans were produced in 1973-74, thus effecting recovery in a substantial way.

More meaningful than rice production and population figures *per se,* when one considers the total population depending on the food supply, is the per capita cavans of rice available. If we divide the 27 years reported in Table 136 into three 9-year periods, the average per capita of rough rice produced has declined from 3.02 cavans during the first period 1948-57; to 2.96 in the second period, 1957-66; and then 2.94 in the period from 1967-75. This last period is particularly significant because it marks the era of the new rice varieties. It is obvious that, although total rice production increased considerably from 1967-68, the per capita availability of rice is not encouraging. There was more rice per capita during the first 9-year period than during the third period, despite the gains made in productivity. Catching up with population growth absorbs all the gains in our rice supply. As they say: "We keep running just to stay in place." Nowhere is this expression more aptly demonstrated than in the set of figures in Table 136. During the 27-year period, rice production increased 2.3 times and population, 2.1 times.

Farmers, unlike other groups of people in the country, make a complicated *trilogy of contributions* to the food problem. They *produce the food, the producers of the food, as well as the consumers of the food they produce.* It is difficult to unravel when one factor represents for the farmer a constraint or a potential for increasing productivity. At the macrolevel it is easy to see why we should have fewer children. But at the level of the individual farm or farm labour household, we can ask the question: "When one is poor; has little or no land of one's own; has little or no education; meager material wealth; and not much future in sight for themselves, why shouldn't he want to have at least six children as his major capital for survival and hope for the future?" Unlike other occupational groups, farmers affect both the numerator and the denominator in the

food-population equation and, from what we have seen so far, they seem to be at least as efficient in producing the denominator as the numerator (78). Because food is produced by farmers and because 70% of our population are rural-based, the major target clientele for both agriculture and family planning programs is the farm and rural population. As mentioned earlier, although we have a large network of agricultural high schools, colleges, and universities, the agricultural production process is in the hands of farmers who have little formal schooling. Therefore, there are two ways by which agricultural education can have an impact on agriculture: first, via the products of agricultural research done by high-level trained manpower and, second, via agriculture graduates who directly or indirectly bring agricultural technology to farmers. Unless this technology is *transferred* from its "creators" to where it can be applied for production purposes, our food problem will remain an intractable one. On the other hand, since the majority of our people live in the rural areas, unless family planning concepts are learned and techniques utilized by the rural populace, no substantial reduction in birth rate can be expected. The *transfer* of effective family planning technology to the bulk of our "eligible" child-bearing, reproductive age population is considered one of our development imperatives and much of this transfer has to be made to prospective recipients in the countryside.

This chapter describes the technology transfer process in agriculture and population control under three headings: *rice and other agricultural technology, farm mechanization,* and *family planning methods*. Experiences are analyzed with respect to patterns of communication, diffusion, and adoption of these technologies. More specifically, the following aspects of the technology transfer process are included: *Agricultural technology*: (1) channels of communication and sources of information; (2) the adoption process; (3) adapting to the changes involved in the adoption of new technology; (4) patterns of early adoption; (5) adoption patterns over time; (6) the role of agricultural extension. *Farm mechanization*: (1) from designers to manufacturers; (2) institutional credit, distribution, and machinery servicing; (3) machinery owners and farmer end-users. *Family planning methods*: (1) trends in births, deaths, and life expectancy; (2) general characteristics of family planning methods; (3) Wives' exposure to and use of family planning services; (4) Continuing use of, beliefs about, and fertility effects of family planning methods.

Agricultural technology

Channels of communication and sources of information

To communicate any technology for possible adoption by a target clientele, a number of channels can be utilized: *mass media* such as radio, television, newspapers, magazines, bulletins, pamphlets, comics, etc.; *specifically trained and formally designated personnel* represented by the extension workers; other *informal personal channels* such as friends, neighbours, relatives, other farmers, etc. For reaching the intended audience, there are three general approaches: a *mass-oriented strategy* such as that evident in the use of mass media; *individual or person-to-person approach* as in farm and home visit and individual consultation; and *group method* as in the use of organized groups such as farmers' associations, and the use of seminars, meetings, classes, lectures, field trips, and demonstrations, which are conducted through groups of people assembled for the purpose. The communication process can originate from the source of the message, the originator of the idea, the innovation, or the technology. The information-seeking initiative could also originate from the potential adopter himself.

Studies of farmers' sources of agricultural information show the importance of personal sources such as extension workers and other knowledgeable persons who might be other farmers, neighbours, friends, or relatives (76, 83, 156, 197, 295). Information-seeking from mass media sources (radio) and farmers' meetings tends to increase among those with more exposure to extension workers (234). Furthermore, mass media functions as a reinforcer or trigger for action after personal sources have made potential adopters aware of or interested in the innovation (134). *Individual channels* rather than organized group approaches are the most common means by which information reaches farmers (156, 188, 295).

For a more comprehensive report on farmers' exposure to different sources of agricultural information, we have the Bureau of Agricultural Economics Integrated Agricultural Survey of June 1972 which shows the following trends (74):

(1) In general, only about one-quarter of the rice farmers have been visited by

the extension worker. For corn farms, the exposure is even lower, less than one-fifth. Since one visit per farm does not mean very much, we should look at the proportion of farms receiving three or more visits. This amounts to about 10% for rice farms and less for corn farms. Since a massive supervised credit program called Masagana 99 was launched in May, 1973, perhaps there has been some intensification of extension coverage. But because the extension worker also has the responsibility for processing production loans, increased contact with farmers does not necessarily mean more agricultural extension (31). Although farmers' exposure to extension workers is low, the "radiation effect" from farmers who have the initial extension contact to those who have no direct exposure could offset, in some way, this rather thin coverage. Even Central Luzon, which is the site for many pilot programs in agrarian reform and rural development, had less than one-fifth of their farms visited by extension workers. Eastern Visayas, Southern and Western Mindanao, which have more corn farms, exhibited even lower extension exposure.

(2) For rice farmers who have had contact with extension, about 40% received only one visit, while another 40% had three or more. Similar trends are indicated for corn farms. In 1971-72 when the Integrated Agricultural Survey was done, technical advice was the most important reason for visiting a farm.

(3) For an extension worker, it would be more efficient if farmers visited his office to consult with him regarding their problems rather than for him to go to each farm. In practice, only about 11% of rice farmers and 8% of corn farmers took the initiative to visit the extension office, mainly to seek advice on pest control. This implies that the visit was prodded by the occurrence of pest and disease as was the case of the *tungro* virus infestation in 1971-72. About one-quarter said it was not necessary to visit the extension office and more than 40% of both rice and corn farmers indicated that they were too busy with farm work to make the visit. These reasons can be interpreted in two ways: First, since many other studies have shown that farmers appreciate the role of extension (76), but that only about one-quarter of all farmers have had contact with extension workers, perhaps the benefits from extension advice have yet to be sufficiently "sold" to the majority of farmers so that they will take the initiative to seek out the extension worker rather than just wait for him. One can presume that farmers who visit the extension office are those who have had previous extension exposure. As cited earlier, extension exposure gives rise to increased information-seeking. Those who "know" want to know even more, while those who are "extension isolates" or "extension virgins" do not know what they are missing. Second, perhaps extension consultation, unlike medical consultation where the patient goes to the doctor's office, cannot be dispensed in the office without seeing the farm. Furthermore, "preventive farming knowledge" probably does not have the urgency, which characterizes disease and insect problems, that forces one to go in search of advice rather than wait for it.

(4) Although there is a low level of exposure to extension, it is encouraging that more than 80% of rice farms and 70% of corn farms use sources of information on rice and corn farming outside the extension worker. Of these other sources, the radio seems to be the most popular (about 40% mentioning it for rice farms and 30% for corn farms), followed by neighbours (more than 20%). Cooperatives and rural banks play a minimal role in this regard.

The high percentage of rice and corn farmers reporting use of the radio as source of agricultural information is indeed encouraging, for it performs a reinforcing or a supportive role to the extension worker. This is an improvement over the earlier indications on the minimal role of the radio in the dissemination of information on new agricultural technology. The potential of the radio as a channel is further substantiated by another nationwide study which focused on farmers' sources of market price information (8). About one-quarter of the farmers reported radio as their source and they were most interested in the prices of three commodities: rice, corn, and coconut. Newspapers and magazines were hardly used for this purpose. About one-third mentioned fellow farmers. Other positive notes on the use of the radio are also evident in the decline of non-listeners to radio market price reports from 65% in 1969 to 28% in 1970. In general, there was a growing interest as indicated by all respondents in 1970 who expressed a desire for market price information. In 1969, about 38% of them did not care for such information. As pointed out by Mercado, the authors of this nationwide study emphasized the importance of interpersonal communication in combination with mass media because there is a prior need to "educate" farmers on the usefulness of timely market price information before they find a reason for turning to the media for this information.

The Gomez and Samonte et al. studies found that persons used as sources of farming information are chosen for this purpose on the basis of their technical competence, knowledgeability, or that farmers actually see them using the farm practice. Often they are the ones who mention or teach the practice to the farmer, or are the innovators or first adopters. Legitimizers, persons who convince or recommend the use of the practice or serve as models to imitate, are also of great assistance in carrying out the practice. Interpersonal networks through which communication of information takes place are found to be mostly dyads, or made up of two persons only; triads and larger sized networks are not as prevalent. This means that the flow of information and adoption by radiation are likely to be slow.

Among the coconut farmers whom they studied, the major decision-maker in three-quarters of the cases is the farm owner whether or not he is operating the farm himself. Tenant-caretakers are mentioned by less than one-fifth of respondents. The identity of the major decision-maker in farming operations is very crucial in designing communication strategies for technology transfer, for this determines the target audience or who should be convinced that an innovation is worthy of adoption.

The adoption process

What does a farmer do with agricultural information, ideas, and innovations which reach him from one source or another? If the message-recipient is someone other than the farmer-cultivator, such as the landlord, the recipient of new information has to "bring the message" to the attention of the implementor if he wants action. Otherwise, the information "dies" with the recipient. If the farmer-cultivator is the recipient of the message but not the sole or major decision-maker in the farm, he has to communicate with the other decision-making participants for approval. In an owner-cultivator situation or if the farmer-cultivator himself is the major decision-maker on farm operations, he could initiate the adoption process directly.

Samonte et al. (295) take us through the different stages which an individual who has only himself as a decision-maker goes through in adopting a particular farm practice. Using unstructured interviews, 90 coconut farmers were asked to narrate and reconstruct how they actually went about deciding to adopt their most recently adopted farm practice. Only completed adoption cases were considered; rejection and discontinuance were not included and the stages of the individual adoption process were operationally defined as follows: "*Problem perception stage* - an unsatisfactory state, situation or need related to the existing farming enterprise as perceived by the adopter. *Awareness stage* - first knowledge or first exposure to the farm practice or innovation. *Interest stage* - more or additional information about the farm practice is sought. *Evaluation stage* - consideration of the pros and cons of farm practice. *Trial stage* - tentative or provisional application of the practice for testing purposes. *Adoption stage* - application or use of the farm practice. *Resolution stage* - statement of support, justification or reinforcement for decision taken." Samonte et al.'s analysis of the 90 case studies of individual adoption identified five major dimensions:

(1) *Innovation-problem dimension* - The individual adoption process unfolded either by starting with an *awareness of a farm practice* or innovation or the *perception of a problem*. There were 62 out of 90 cases which started with awareness of an innovation, while the remaining 28 started with the perception of a problem. In other words, while one adopter started his narration with getting to know or hearing about fertilization or pest and disease control, another started his account with a statement of his farm problem first, such as poor or unproductive soil or damaging attacks of pests and diseases. Perception of the problem occurred in 8 cases at midpoint during the adoption process after the trial or evaluation stage.

(2) *Interest-noninterest dimension*. The interest stage occurred in 36 cases which means that adopters went through a subprocess of additional information-seeking, particularly on the instructional or how-to-do-it aspects of the innovation. In 54 cases, the adopters skipped the interest stage and went directly to the evaluation or trial of the innovation..

(3) *Evaluative-nonevaluative dimension*. The evaluation stage was evident in 29 cases. The rest showed no distinct stage of considering the pros and cons before applying the farm practice.

(4) *Resolution-nonresolution dimension*. Eighteen adopters concluded their narrations by justifying or giving supportive statements regarding their decision. The

resolution stage seems to be a postmortem explanation to support their use of the practice. This was commonly mentioned by adopters who did not go through the evaluation stage; hence the possible need for a "rationalization" or justification.

(5) *Number of stages and frequency of occurrence.* As expected, all the 90 adoption cases went through the awareness and adoption stages. More than one-third included an interest or additional information-seeking stage. The problem-perception stage was mentioned by more than 40%, although some of them arrived at this during the middle rather than the start of the adoption process. About one-third had an evaluation phase before adoption, but trial appeared the least of all, with less than one-fifth of the cases reporting this particular stage.

The following observations on the adoption process have a number of implications for technology transfer:

It appears that in many instances adoption of an agricultural innovation proceeds with little, delayed, or no conscious perception of the farm problem which the innovation is supposed to relate to; hence, it can be said that many adoptions are virtually cases of imitation rather than a rational problem-solving procedure.

The absence of the trial stage in 80% of the adoption cases can mean that late-adopters have seen the farm practice being applied by someone else and, therefore, they do not have to go through the trial stage themselves.

Sixty percent of the cases studied did not include the interest and evaluation stages which means that there was no effort to obtain additional information and weigh the pros and cons of the innovation. Some of them rationalized or justified their adoption behaviour afterwards. One can infer that adoption in the majority of instances occurs with less than adequate knowledge and only a vague definition of the relationship between their farm problem and the innovation that they are adopting. This inference finds support in a study cited earlier in the chapter on Farms and Farmers that, despite the widespread and quick adoption of the new seeds, their ability to use each input correctly is another matter. Although most of the farmers had used chemical fertilizers for over a decade, only one-third correctly identified the time at which it should be applied. Knowledge of correct weed control practice is also very low. Although they use insecticides and can recognize the damages caused by insects, the identification of the insects responsible for which damage is not encouraging. Practically all of them use the new varieties, but the seeds they use are seldom pure because they obtain them only from other farmers and they plant their seedlings older than the ideal age (31).

Technology transfer occurs most probably as an incomplete transfer with minimum comprehension about the technology itself and all that it entails. Where farmers have little education, this kind of outcome is not surprising.

Adapting to the changes involved in the adoption of new technology

One of the most significant developments in the past 10 years is the advent of new rice varieties. Their creation and eventual spread is one of the most documented and most controversial in the annals of international development literature. But so far, except for one study done by Chu (83) who as an extension worker was very much involved in the dissemination of the new seeds, no one has examined the behavioral adjustments which farmers and their families had to make when they tried these new seeds. In 1971, Chu interviewed intensively 272 rice farmers from 45 villages of 12 municipalities in the provinces of Ilocos Norte, Sorsogon, and Nueva Ecija. For the purposes of his study, he identified three groups of farmers: The *first group* consisted of 38% who had continuously planted the same rice variety which they had adopted 3 years earlier; the *second group*, 52% had discontinued use of the first new seeds they planted and replaced it with more recent varieties which seemed to offset weaknesses of the first ones as observed in their own farms; the *third group*, 10% completely rejected the new variety for failure to prove its relative advantage over the local varieties given their field conditions. For convenience, we shall refer to the first group as the *persistent adopters;* the second group, the *progressive adopters;* and the third group, the *dropouts.*

From Chu's analysis, several interesting general observations on the "adoptation" process which farmers went through during the adoption period can be made:

Personal skills, competence, and prior experience were mentioned as the most important personal qualifications related to the use of new varieties which made the trial a success.

Farmers said that their work life, while growing local and new varieties, was different because the latter meant the use of modern cultural practices that involved more activities. Growing new varieties is more laborious, expensive, and more time-consuming, and farmers indicated more concern about crop outcome. To adapt to the changes in their work life, they gradually followed required procedures, worked harder, and did things through experimentation. They also discussed work problems with immediate family more often than when they were growing traditional varieties.

To enable immediate family members to adopt to the work problems involved in growing new varieties, several means were evident: Some farmers found easy adaptation because deciding for the family is part of the routine in their life. Others tried to interest members of the family and they made the adaptation gradually. Still other families welcomed the change, cooperated with the farmer in all aspects, and tried to understand the new variety and what it involved. By cooperating in farm activities, visiting the farm, constant encouragement, sharing with farm problems, and trying to understand farm investment, immediate family members helped in making the trial of the new variety a success. It is interesting that some farmers mentioned family members helped by not interfering. This could mean that perhaps the family had objections and, therefore, they helped by noninterference or by leaving the farmer alone.

Group III adopters or the *dropouts differed* in many ways from Groups I and II, the *persistent and progressive adopters*. Although the latter groups saw much difference in their work life when changing from the local to the new varieties, the dropouts said their work life was about the same; their farming procedures were similar; and they did not expect much difference. When asked to rate their performance with the trial variety compared with their neighbours, the Group III adopters rated themselves much lower than the other two. Unlike the persistent and progressive adopters who opted to gradually follow the required procedures involved in adapting to the changes in the work life, the dropouts' response was to return to the local varieties and to take it easy. Discussions of work problems with immediate family also remained the same because they regarded their work life as similar even after trying the new variety.

At the time of trial their general feeling about the new variety was one of moderate satisfaction or general dissatisfaction. When asked to assess the reality against their expectations of the variety, a high proportion of the Group III adopters regarded it as generally worse than expected, and more of Groups I and II assessed it as better than expected. It should also be pointed out that percentage of farm area planted to the new variety was lower for Group III than for the other two.

Contrary to the usual expectation that larger farmers, owner-operators, and leaseholders will be more innovative, Group III adopters (or the dropouts) had larger farms and more leaseholders, and Groups I and II had a higher proportion of share tenants and smaller farms. Apparently, Group III farmers were no less inclined than the other two groups to try the new variety, but it is their subsequent unsatisfactory experience with the yield in their farms which prompted the decision to revert to the old varieties. Perhaps more significant than any other factor is the fact that two-thirds of the two groups of adopters have two-crop irrigated farms; whereas, only 9% of Group III farmers have such facilities and about 60% of their farms are rain-fed. This probably explains their poor performance and eventual dissenchantment with the new variety.

Government technicians and other farmers and neighbours were the most important sources of information and had the greatest influence on farmers' decisions to try the new variety. Reasons given for relying on them as information sources and for allowing them to influence their decisions are technical competence; advice, services and guidance on the part of the government technicians; and actual proven experience on the part of neighbours and other farmers. Credibility of information source is derived from *technical expertise* and successful *practical experience*. "Seeing is believing" and "the proof of the pudding is in the eating" are very much part of the credibility of other farmers.

All three groups followed to some degree other recommended cultural practices when they tried the new variety. Information on these cultural practices also came from the above-mentioned sources. When asked what criteria they applied to determine whether cultural practices were used correctly, farmers mentioned *crop yield* and/or the *stand of the crop*. Others just followed detailed cultural requirements and depended on the guidance of technicians. They learned about these new farm activities in one cropping season or less through practical application, farm demonstrations and farmers' classes,

lectures, technicians' guidance, and through observation and experience.

Farm activities associated with the growing of the new variety turned out to be more time-consuming and difficult, but rewarding. About one-quarter felt that the activities were the same as when using the old varieties. The most difficult cultural requirements were weeding, pest and disease control, high cost of inputs, and straight-row planting. More than 90% of farmers who tried the new variety used fertilizers and chemicals. Although more than one-half of them did not mention any particular farm activity that they disliked most, those who did, mentioned: weeding, spraying, frequent field visits, and straight-row planting. Some proceeded with reluctance, annoyance, feeling of self-sacrifice, and some were complacent; whereas, others, especially in Group III, said that they were not planting the new variety again or that they were thinking of another job. Pest and disease and natural calamities were the most frustrating experiences with the new variety. Their frustrations were handled by consulting knowledgeable persons and by trying control measures, but some found them difficult to handle. Again, the Group III farmers' response to the frustration was quite different: They waited for the grace of God and decided not to plant it again.

The key decision-makers in farm activities and in trying the new variety were the farmer himself and the government technician. Landlords were rarely mentioned although one-half of the farmers studied were share tenants. Whether the extension worker likes it or not, his technical advice and recommendations are important ingredients in the farmer's decisions. Among the 272 farmers interviewed, one-half mentioned that they themselves initiated interaction with the technician and the other half said it was the technician who took the initiative. Considering the frequency of technician-initiated interactions with farmers, it is not surprising that technicians have been pinpointed by farmers as one of the key decision-makers in their farming activities. In this sense, extension workers are a major management input.

Patterns of early adoption

From the extensive studies on farmer response to the new rice varieties developed by the International Rice Research Institute and the University of the Philippines at Los Baños, the following patterns of early adoption can be identified (76):

Lall and Chu observed that early adopters tended to use extension workers as the main source of information at all stages of adoption; whereas, the late adopters tended to depend on other farmers (friends, relatives, and neighbours) for information (83, 197). The early adopters were more willing risk-takers and, in effect, functioned as the trial stage for later adopters. Although the latter missed out on whatever rewards accrued to early adoption, they were spared much of the risks which accompanied early adoption.

Based on the length of time between awareness and adoption, Liao found that the earliest adopter took 4 months; the relatively early, 7 months; the relatively late, 13 months; and the latest, 19 months. The average percentage of farm area planted to new rice varieties for the first time gradually increased from 42% for the earliest adopter; to 66% for the relatively early; to 74% for the relatively late; and then to 83% for the latest adopters (209). This indicates that the first adopters, although more immediately responsive to the change, were faced with greater risks than the latest adopters who were able to benefit from the experience of others, and they were, therefore, less inclined to go all the way. There was a marked *demonstration* effect from the early to the late adopters.

Early adopters of the new rice varieties intended to adopt a package of rice production practices with them such as seedbed preparation, fertilization, pest and disease control, straight-row planting, weeding, etc. In Sumayao's study the phenomenon of "special variety deserves special treatment" was very much in evidence. The same group of farmers who planted the traditional and the new varieties gave the latter "preferential treatment" (313).

Other early adoption patterns identified were: *multiple variety planting* which means that farmers in the early stage planted as many as six varieties including the old ones. This was done for "insurance" purposes, in case the new ones failed. In the later stage, when confidence in the new seeds had been established, multiple variety planting was more of an experiment to test which of the new ones performed better. Late adopters tended to plant their whole farm to only one variety. There was also a *seasonal pattern* which was a strategy of choosing separate wet and dry season varieties depending upon the

water situation. Closely related to this strategy is the differential response of the rain-fed and irrigated areas to the new seeds, with the latter adopting more quickly than the former. Finally, because of the shorter maturity period of the new rice varieties and the fact that a number of them could be planted at any time during the year, especially with the presence of irrigation, a *change in cropping pattern* occurred in many places. This means not only an increase in number of rice crops grown per year but also a change in planting and harvesting times (76).

Adoption patterns over time

The adoption of new rice varieties is one of the most fascinating stories in the transfer of agricultural technology, not only because of the significant role which rice plays in the life of the Filipino as a producer or as a consumer, but also because of the lively debates regarding the impact of this technology on productivity, employment, income distribution, resource allocation, and power structure. Tables 137 to 139 show adoption trends over an 8-year period from 1967 to 1975:

During the initial crop year, more than one-third of the irrigated areas had adopted the new varieties, but less than 13% did so in the rain-fed areas. However, within 8 years, the percentage of rain-fed areas planted to the new seeds quadrupled and that of the irrigated, a little more than doubled, so that by 1975 almost 80% of the irrigated and 50% of the rain-fed areas, or more than 60% of the total rice area, were devoted to the new varieties. It would, therefore, seem that although the irrigated showed a definite advantage in initial adoption over the rain-fed, the latter areas have also responded favourably. Furthermore, since in total there is more rain-fed (60%) than irrigated rice land, for the crop year 1974-75, the total rain-fed hectarage devoted to the new varieties is almost as much as that in the irrigated hectarage (1067.8 million versus 1109.6 million hectares). The upland area, which has not yet participated in the new technology, makes up less than 13% of total rice hectarage and is, therefore, not as substantial as the rest of the rain-fed which has remained in the traditional varieties. One also wonders why 20% of the irrigated areas have yet to join the adopters.

The significance of irrigation is clearly illustrated in the fact that, although only 40% of total rice area is irrigated, it contributes 54% of total rice production (Table 137). Conversely, although 60% of total rice area is rain-fed, it contributes only 46% to total production. Upland rice is less than 7%. The increasing volume coming from the new varieties is evident in the 39% share it had during the first year to 81% after 8 years in the irrigated areas and from 15% to 58% in the rain-fed areas. On the whole, total rice production from new rice varieties increased from 27% to 71%. Therefore, the technology developed by the rice scientists has found its way to the rice fields and has been transferred from the experimental station to the farm.

Although the rate of adoption has been phenomenal, the general average yield performance of the new rice varieties over the 8-year period has been far from impressive. Although consistently higher than that of the traditional varieties whether planted in the irrigated or the rain-fed areas, the yield advantage is small. This suggests that the experiment station potentials have not been realized in farmers' fields. Furthermore, it is not surprising that the performance of both new and traditional varieties is consistently better in the irrigated than in the rain-fed. What is worth pointing out is that the irrigated - rain-fed yield difference is greater than the new variety - traditional variety difference even within the irrigated area. We would have expected a wider gap between the two under irrigated conditions. In other words, the difference in yield between the irrigated and rain-fed areas is more significant than that between the new variety and the traditional variety. The crucial role played by irrigation is quite obvious and it is rather disappointing that the new varieties have not performed much better, although as pointed out earlier they have consistently outyielded the traditional varieties. It is no longer a problem of nonadoption but more of a performance gap in the case of the new technology. In viewing technology transfer, therefore, we need to go much beyond adoption or nonadoption and to consider whether the "hows", "wherefores," and "whys" (the concept, the technique, and the scientific basis) have been comprehended and adopted as well.

The role of agricultural extension

As discussed earlier in this chapter, the material part of the technology might be adopted, but misused or misapplied, because the other "ingredients" were not transferred along with the material component of the technology. Where farmers have little education

and information sources have less and less expertise as adoption proceeds from the early to the latest adopters, we can imagine the "message distortions" which occur along the way and the corresponding repercussions on the performance of the technology which has only been "partly" or even erroneously adopted. The availability and competence, therefore, of those responsible for transferring technology is as crucial as those who produce the technology. When one considers the rapidly rising cost of investments in research, irrigation, fertilizer, and other inputs, there should be a payoff in maximizing the returns from the application of technology.

In this connection, the importance of the extension worker cannot be underestimated. He is the conduit for agricultural technology, technical knowledge and skills, agricultural credit, organizational services, land reform, and general development information. There are those who argue that, if the technology is sound and profitable, it will diffuse without the aid of extension workers. However, where farmers are poor and have minimum education, as mentioned above, diffusion and adoption could take place rapidly but without the necessary knowledge to use technology correctly. The extension worker's role in the more equitable delivery of development services is important because he is the farmer's link with the outside world. Quite often, it is he who determines which farmers will receive the new seeds, the credit, the fertilizer, etc. Where the farmer-extension worker ratio is very unfavourable, one cannot expect the extension worker to give priority to the more "difficult" sector of the farming community, especially because the so-called "better-off" farmers are not that well-off or sophisticated. With the advent of irrigation, new technology, credit, and land reform, farmers recognize more than ever the value of competent and more frequent contact with extension workers. They have no desire to be left behind (41, 74, 76, 86, 192, 197, 287, 335). On the positive role of extension, a recent study has shown that extension substitutes for the effects of schooling in less developed villages and, in the more developed ones, extension and formal schooling complement each other to increase rice production. The need for a sustained, viable, and dependable extension system is also suggested by the finding that "the effect of extension contact in a year does not depreciate in the same year but the effects diminish at a rate of 50 percent in the following years. The more rapidly the recommended inputs change, the more rapidly the effect of extension participation will diminish" (164, 321).

On the other hand, extension work is not a glamorous job; work overload, low pay, meager transportation allowance, difficulty in convincing farmers on the merits of innovations, presence of factional groups among farmers, lack of confidence in the worker, unrecognized performance, etc. are frequent complaints (214).

Farm Mechanization

Technology is often thought of as "hardware" which comes in the form of machinery. In the process of modernizing agriculture, farm mechanization looms as one strategy very likely to be introduced despite the many misgivings associated with it, particularly its labour displacing, capital-intensive, foreign exchange, and skilled manpower implications. Table 140 shows the proportion of total farms using different kinds of farm equipment as of 1971 and gives us a perspective of the problem of farm mechanization. Except for the plow which is used by almost two-thirds and the harrow which is used by less than one-half of the farms, Philippine farming is far from being a mechanized agriculture. Only 3.8% used tractors and 6.3% used harvesting machines and threshing equipment. Even if the utilization of both types of machinery has doubled from 1971 to 1977, the percentage of farms using them would still be small. Furthermore, the provincial distribution of tractors and harvesting and threshing equipment indicates that the concentration can be found in Nueva Ecija, Pangasinan, Tarlac, Bulacan, Cotabato, and Laguna. For the other parts of the country, farms are relatively untouched by tractors and threshers, and those which have them do not own the machines but rent them. Even sprayers are used only on a few farms (6.4%) and motor vehicles are even more rare (3.6%). The plow and the harrow, which appear to be the most essential, have the highest degree of ownership and use.

The introduction of farm machinery in the Philippines in recent years includes a number of dimensions and different target clientele at different stages. There is a transfer of concept from *designer to manufacturers;* to *credit institutions, distributors* and machinery *services;* and finally from *machinery owners* to *farmer end-users.* An attempt will be made to present experiences at each stage in the adoption of farm machinery.

From designer to manufacturer

Although many of the tractors in the country have been imported from abroad, this section focuses on the International Rice Research Institute (IRRI) Small Farm Machinery Research Program (28) which has resulted in the development and introduction of simple machines that can be locally manufactured; are suitable to relatively small farms; can be made with few machine tools; and can use basically unskilled labour. Besides saving foreign exchange and providing additional employment, locally built machines are also regarded as more easily maintained and repaired because the skills for repair can also be developed locally. The four major phases of the IRRI program illustrate the transfer process from the "drawing board" to the local manufacturer. What is interesting is that the designs are also "transfers" in the sense that they are based on modifications of known designs gathered from other parts of the world, particularly from countries with small-scale agriculture such as Japan or other developing countries. Adaptations to local conditions are made and in some instances a new machine may be developed largely on the basis of knowledge of what the farmer needs. In both cases, the design phase benefits considerably from interaction with and feedback from farmer users. While the first phase involves working with other designs and with farmers, the second phase brings in another target group - the potential manufacturers without whose participation this local farm equipment development program would not be possible. In effect, this phase requires *extension work with manufacturers* who are encouraged and taught to develop prototypes of the design with the ultimate aim of having them mass-produce the equipment for sale. The third phase is a field trial of equipment, both for demonstration as well as for testing suitability in farm conditions, which sometimes leads to design modifications. The fourth phase includes "selling" the program itself to government and other institutions in order to enlist their support in the more general introduction of rice farm mechanization in the country.

As in many other types of technology currently developed and introduced where the major concern is to "bias" its benefits in the direction of the "small", the poor and the less privileged, the IRRI program has the same thrust. But as has been the experience with other technologies, IRRI had initial difficulty in attracting local manufacturers even when the designs were made available at no cost. They had to assume some of the initial financial risk by contracting with several firms to manufacture prototypes of the machines. Small firms were not willing to take the risks of producing and marketing a new product. Again, as with the new rice varieties where early adopters were willing to take the risk, a large, local company served as a vehicle for "transplanting" a product of research into an industrial product. This local corporation, which is an importer of Japanese power tillers and tractors, became interested in the IRRI designs for the tiller and made six prototypes in 1972. Their success in selling the tillers demonstrated to smaller firms the commercial possibilities of the product, thus inducing a number of them to undertake its manufacture. In addition, the large company's widespread marketing network facilitated the diffusion of IRRI tillers all over the country, thus exposing not only farmers but also more small firms to IRRI designs. A common awareness of a new product by producer and consumer has, therefore, been brought about.

A significant parallel exists between the experience with the diffusion of IRRI's farm equipment and that of the new rice varieties. The early adopter (the large company) served as a "trial" or a demonstration stage for the small metal working shops who went into tiller production later. Furthermore, as in other agricultural innovations, personal contact between the IRRI technicians, local manufacturers, and farmers plays an important role in the diffusion and adoption of the IRRI designs.

The greatest acceptance has occurred where personal contact with IRRI personnel has been most evident. The availability of IRRI technical assistance in such instances was doubtless an important factor in the adoption of the designs. As Becker et al. concluded: "successful transfer and diffusion of new designs requires the entire spectrum of services: research, development, publicizing the availability of designs, providing designs at no cost, contracting with manufacturers to build a prototype, testing and evaluation of industry prototypes and provision of technical assistance." All these services have their analogues in the research, development, introduction, diffusion, and adoption of many other innovations in agriculture that have farmers as a direct target group.

A quantitative indication of the extent to which the transfer of technology has taken place from designer to local manufacturer is that, in 1972, imports accounted for 85% of total power tiller sales, but in 1973, 65% of 1609 units were locally produced.

This does not mean that all these local products were based on IRRI designs for there are other local machinery designers, but it illustrates the speed with which local adaptations can be diffused when found workable and profitable. The tiller population in 1973 was estimated to be 8000 and the market in 1975 was 5000 annually. It is projected to reach 10 000 units by 1980 (28). Whether this projection will actually be realized remains to be seen, but the Porter study (278) shows that the actual use and the preference for power tillers is much stronger than that for four-wheel tractors.

Although the IRRI designed power tiller has been a success story in adoption, other *concepts* of farm mechanization, particularly for postharvest purposes, have not as yet materialized into farm-usable equipment. One example of an idealized, village-level intermediate, inexpensive technology is the farm-drying concept (108) which envisages the:

"Introduction of a very low cost batch type farm drier that farmers or village craftsmen can build from locally available off-the-shelves materials. Their use requires the minimum of fuss and should not damage the milling quality or viability of the grain. The concept is also to move the drying from the storage or milling plants to the farms. This is an attempt to solve the time delay between harvest and drying. These farm units are not intended to eliminate farm drying but merely to complement them. At the peak of the harvest season when the grain is very wet, 26 percent moisture, the farm driers can extract the first 8 percent to arrest the biological deterioration of the grain. At 18 percent the grain may take 2 or 3 days to reach the plant where a final pass to the desired storage and milling level of 13-14 percent may be done. This concept has been tried with two farmer-cooperators and with a rice control and appears to be workable."

So far this idealized concept has not progressed much beyond this state. As emphasized by the designer:

"The farm drying concept differs from IRRI models in that construction is to be done at the rural level without industrial shop equipment. Its introduction is at the farm level, right on the rice farm. Its manner of acquisition, if introduced in farmer cooperatives must be built-in their farm budgets. Their initial operation must be closely supervised by a trained technician. A follow-up service must be provided. Its introduction must be pragmatic, well-conceived and taking into account social, cultural, economic and technical implications. This concept has not merited consideration at national levels and most probably will remain a concept. While the drier has proved itself quite popular primarily because of its low cost ($500), and simplicity, inappropriate application and operation will cause unsatisfactory results."

Perhaps this farm drying concept has failed to gain acceptance despite the simplicity of its mechanics because the institutional and social requirements for its introduction, development, and use at the farm level are still unknown and its operational workability remains to be demonstrated. But more than that, the power tiller by its very nature is regarded as an essential equipment for land preparation. On the other hand, as long as the demand exceeds the supply of rice, and as long as farmers sell most of their rice immediately after harvest, investments in farm drying equipment are likely to be regarded as unnecessary. Furthermore, if the price differential between dried and wet rice is small, there is little or no incentive to make the additional investment.

Although the farm drying concept illustrates an *abortive technology transfer*, we have a good example of a tenaciously adopted technology despite its evident "inefficiencies." The *Kiskisan* is a rice mill commonly used in the villages for custom milling for home consumption. It is estimated that 55% of the country's milling is done by the *kiskisan* which has a capacity of one-half ton per hour. Because of poor milling recovery (60%), the government has discouraged its use but with little success. So far, there is no alternative which can compare to its simplicity, compactness, ruggedness, low cost, low maintenance requirements, and availability at the village level (108). Equally important is the fact that *kiskisan* services are often paid in kind, usually in rice bran which includes quite a bit of crushed rice hulls that add to the bulk of the livestock feed. The loss in terms of milling recovery is a disadvantage to the farmer, and to the country in general, but not to the *kiskisan* owners. If they can continue to profit from the machine with minimal or no further investments, the machine is not likely to be replaced by a more expensive piece of machinery that promises to benefit the farmer and the country more than the *kiskisan* owner himself. Only a proliferation of new adopters of more efficient rice mills could render the kiskisan obsolete, but it is difficult to imagine a successful replacement of old *kiskisans* at this moment.

Institutional credit, distribution, and machinery servicing

Because farm machinery is expensive, farmers need substantial capital to acquire it. The World Bank, through the Central Bank, has tried to facilitate technology transfer through a credit program for farm mechanization. To reach the farmer, credit is channeled through the rural banks; hence, at this particular stage they are the relevant target group for the diffusion process. A study of the CB-IBRD credit program (330) from 1966-73 shows a total of 6091 farmer borrowers. That the rural banks can be as resistant to new programs as farmers is demonstrated by the fact that throughout the 7-year period only an annual average of 26% of total operating rural banks have been involved in the program. Each participating bank on the average has extended loans to only 6.69 borrowers and 60% have financed only three borrowers on the average. It can, therefore, be said that the rural banks have only a token interest in the program. Three out of 10 rural banks studied do not have any promotional activities on the program and those that do use word of mouth, personal visits, radio, dealer, posters, letters, local news, and theater advertisements. Those banks with promotional programs have more borrowers and a larger volume of loans. Among the banks' reasons for participating in the credit program are: to service community needs and earn goodwill; to diversify their lending operations; for progress and profit; and to satisfy the Central Bank personnel. In general, it can be said that the credit program for farm mechanization is not one which seems to have been accepted by the rural banks with enthusiasm. They appear to have only a token interest, the explanations for which are not clear from the study. Another indication of the rural banks' lack of efforts to diffuse information regarding the program may be gauged from the observation that almost one-half of nonborrowers interviewed said they did not know they were qualified to borrow; others did not know about the program or were not interested; some were afraid to borrow; and a few applied for the loan but withdrew. Of course, the high cost of farm machinery is also a deterrent. Loan repayment is a problem although half of the borrowers were previous depositor-borrowers of the rural bank and 93% of them had fully repaid their previous loans before this credit program started. Their clientele also tend to be large borrowers with an average size loan of P59 140. An important reason for nonrepayment of the farm mechanization loan is their tendency to invest the money in other projects. Despite relatively limited, rural bank participation and a highly selected clientele biased toward the larger borrower, loan collection is a problem.

Between the rural bank and the farmer borrower is the machinery dealer and his agent who play a facilitative role in the diffusion-acquisition process. More of the borrowers learn about the credit program from the dealer than from the rural bank officials. Machinery dealers are also mentioned as the persons most helpful in obtaining the loan. Besides the borrower himself, the dealer's advice is the most significant factor which influences the borrower's selection of machine brand, size, type, number, and make of implements. Although borrowers claim that their choice of machinery is based on durability and availability of spare parts, the agent's recommendations and his help in processing loan papers have a considerable effect on this decision. Since 96% of borrowers who bought power tillers and 83% of those who purchased four-wheel tractors bought their machinery as package deal sales, the implements are either of the same make as the tractor or, if they are not the same, the make is one which the dealer also distributes and an effort was made to match the implements with the tractor. As the study points out: "One drawback of this arrangement is that dealers tend to include as many implements and accessories within the limits of the loan, taking advantage of the farmer's lack of understanding of the application of the accessories vis-a-vis their farming needs." The dealer's role becomes even more crucial after the machinery has been sold to the farmer since their continuing technical support to the tractor owner will determine the success of the project. Thus, the Central Bank requires dealers to provide the necessary spare parts and personnel to service the machinery of all tractor owners participating in the program. In spite of this, there were complaints from tractor owners whose machinery dealers closed shop after selling several units of the machine. Most of these were distributors of power tillers who were unable to provide spare parts and services. These experiences create disruptions in the continuing use of the machine and provide negative demonstration effects on other potential machinery purchasers.

The maintenance and repair shop, which may or may not be part of the dealer's services, is again a vital link in technology transfer. These shops report that many of the problems which they encountered could be traced to carelessness in the cleaning and maintenance of the tractors. The estimated *downtime* or tractor's idleness due to minor

and major repairs done on the tractor is 248 to 288 hours per year for the four-wheel and 136 hours for the power tiller. These are work hours lost due to repair work. Moreover, the four-wheel tractor has higher repair and maintenance cost than the power tiller.

The 1973 Porter study indicated that:

"....in many cases, operation by inexperienced owners and the lack of adequate service facilities have resulted in tractors and tillers becoming inoperable in about 3 years while loan repayments are scheduled for 7 or more years. As a result, a large number of tractors and tillers have had to be repossessed. Many potentially usable power tillers and some tractors have been taken out of service because of lack of spare parts. Some years ago, over a dozen brands of tillers were distributed in the Philippines. However, fierce competition drove all but 2 or 3 out of the market leaving many tillers as orphans without dealers to supply spare parts. This has also happened to some brands of tractors in areas where dealerships have been cancelled or given up" (278).

All this experience illustrates the need to "transfer" or develop the know-how and the supporting services along with the technology if it is going to be effective.

Machinery owners and farmer users

Between the designer, the manufacturer, and the farmer end-users of farm equipment, there is a long and complex chain of intermediate links through which a concept is transformed into a usable material reality. Machinery owners do not necessarily operate the tractors themselves; hence, tractor operators are an additional target group in the technology-diffusion process. According to the UPLB-CB report, they learned tractor operation through self study, through the dealer's technician, or through other operators, and their sources of information on tractor and implement operations are the catalogues given by manufacturers/dealers. Only a few have had vocational training. The inadequacy of their preparation for the task is evident in that 70% of tractor operators interviewed were not even aware of techniques to minimize loss of time in tractor field operations. Apparently, being a tractor operator means being able to run the machine. The tractor owners themselves do not seem to be much concerned about the skill and competence of their operators, for only a few of them reported difficulties in hiring qualified operators, but they stressed a problem in getting honest, dependable, and responsible operators.

Because 79% of four-wheel tractor owners and 40% of power tiller owners offer custom services, the farmer who adopts mechanization for land preparation is not necessarily operating the tractor or doing the plowing himself. It is, therefore, possible for small farmers to benefit from mechanization without having to purchase a tractor. As a matter of fact one of the reasons for offering custom tractor service is to help the owner repay his loans and ostensibly to help other farmers in land preparation. Those who did not offer custom plowing said they were afraid to shorten the life of the tractor or that their tractors were used full-time on their own farms. Other tractor owners stopped custom service because of frequent machine breakdown; expansion of their own farm; low returns from the service; competition from better organized custom services; and high cost of spare parts.

As in other aspects of rural life, custom service operators need to establish good personal relationships with farmer users, based mainly on favours extended to clients by way of deferring payment of custom service fees until harvest time without interest. This relationship seems well established because 93% of custom service clients are regular customers. When asked what criteria they used in selecting clients, payment record was most frequently mentioned. Ease of serving the farm, its size, and distance were others, but one-third of custom service operators said they did not select their clients. On the part of the clients, they chose custom-work operators on the basis of distance from their farm; quality of services rendered; speed with which work is done; rate charges; and reliability. Those who used tractor services regularly did so for more timely schedule of farming operations; better quality of work; liberal arrangement for meeting cost of services; and others had no choice because they had no work animals available. Irregular users resorted to custom service only when pressed for time to complete operations because of stiff payments demanded by custom-service operators.

When farmer borrowers were asked what made them obtain loans to acquire farm machinery, their reasons ranged from a desire to increase income through increased yields and through custom service; to diversify farm operations; to save time and labour in land preparation; and to expand their projects. Since 62% of 291 rice farmer borrowers studied were not mechanized before the loan, there has been a definite increase in this practice

as a consequence of the loan program. It is difficult to determine whether mechanization has increased income from increased yield or from custom service. The study found that for power tillers to break even with the cost of operation, it should service 41.97 hectares per year compared with 158 hectares for a four-wheel tractor. The power tillers were found to be operating at 38% above the break-even point; whereas, four-wheel tractors were operating only at 27% higher than the break-even point. It was also pointed out that owning a tractor without using it for custom work makes farmers worse-off. It has been observed, however, that cropping intensity has increased and labour for land preparation has declined. The most clearly evident consequence is that mechanized land preparation saves the farmer's time and energy which, according to tractor users, is spent on improving physical facilities on the farm; attending to family needs; engaging in other business outside the farm; and more leisure.

On the larger issue of labour displacement, the UPLB-CB research report showed that despite the apparent abundance of labour, seasonal labour shortages have been observed, notably during land preparation, transplanting, and harvesting. Unemployment or under-employment occurs only during the dry season when much of the lands are not planted. At some periods during land preparation, animal labour is generally lacking for timely planting so as to take advantage of the first rain, especially in the rain-fed areas. In some places also, as in Central Luzon, the carabao population is decreasing and this shortage is aggravated by the fact that farmers prepare the land simultaneously during a given season. In addition, land preparation requires skill and strenuous manual work and not everyone can do it. Although other farm operations also require skill, they can be performed by women and children. Although the analysis showed that the total number of people employed per farm increased by 17% and the number of man-days increased by 14% after mechanization, the increase in total labour employed per farm could be attributed primarily to the increase in hectarage as well as to an increase in cropping intensity. On a per hectare basis, the total labour employed declined by 6% owing to the decline in labour for land preparation. What should be noted is that, as a result of tractor use, there was a drastic reduction of exchange labour (bayanihan), which was a traditional source of labour for land preparation. Saving the farmer's time and energy (hard physical work) is probably more important than other reasons for mechanizing but is seldom as readily admitted as the usual economic and productivity rationale. One suspects that even if "tractorization" were clearly an uneconomic practice, it would still be adopted for energy-saving reasons. The strenuous manual work involved in farming is, after all, one of its most unattractive features and, if one has been behind the plow with mud at his feet under the scorching heat of the sun, it would be heroic to want energy-absorbing technology.

Another obvious impact of farm mechanization is the considerable increase in labour efficiency. For instance, preparing the land with a four-wheel tractor requires 1.44 days per hectare compared with 9.33 days or 76 hours per hectare with a carabao. On the average, however, preparing the land with the tractor is more expensive because of the high cost of fuel, repairs, and maintenance. When carabao are used, land preparation usually consists of two plowings, two or three harrowings, and leveling. Using four-wheel tractors, the plowing and harrowing can be done by the rotovator which takes only 0.38 day per hectare. What is rather fascinating about the adoption of mechanization for land preparation in rice farming is that, despite the tractor, a carabao is still needed to cultivate the corners of paddy fields that the tractor cannot work on. Comparatively, power tillers worked on a greater portion of a hectare than a four-wheel tractor. Only 1.5 animal days per hectare were spent by power tiller users; whereas, four-wheel tractor users spent 2 animal days per hectare to complete the operation. Power tillers and tractors, therefore, have not succeeded in eliminating completely the ancient carabao and this is a case of the old existing side by side with the new power technology, complementing each other for a more effective job.

Family planning methods

Trends in births, deaths, and life expectancy

Man by himself is a "sacred" creature but together with many other men he becomes part of what we call *population*. In numbers, man is reckoned as a statistic with a distribution, a growth rate, and a dynamics of its own. Population has the capacity to maintain itself, shrink, expand, or even explode. Because of this capacity, population is the object of projection, planning, and control. The rate at which Filipinos are multiplying today is a phenomenon of modern times and, if one wants to be dramatic about

it, we have managed to treble ourselves over a 50-year period from 1903 to 1953, from a population of 7.6 to 22.2 million. But from 1953 to 1973, a period of only 20 years, we have multiplied 1.8 times from 22.2 to 40.3 million. As mentioned at the beginning of this chapter, rice production can barely keep up with population growth. Obviously, we need to put a curb on this "explosion" and the introduction of family planning methods is a major strategy currently being utilized to achieve this objective.

It must be pointed out that this phenomenal increase in our population can be attributed to one major factor - the decline in the death rate, which has been very much affected by technological advances in life-saving, disease-preventing, and health-improving measures, which we have so quickly adopted as part of our general lifestyle. As an illustration of this decline, our death rates went down from 19.2 per 1000 population in 1920; 11.1 in 1950; 9.5 in 1954; 7.3 in 1959; and 7.0 in 1963. Infant mortality (deaths under one year) also declined from 156.2 (per 1000 live births) in 1926; 101.6 in 1950; 94.2 in 1954; 72.4 in 1959; and 66.6 in 1963. This means a reduction of about 4 times over a 37-year period. Deaths caused by malaria dropped from 90.85 per 100 000 population in 1946 to 9.74 in 1958. As a matter of fact, in 1952, it was estimated that there were annually some 2 million cases of malaria in the country with over 10 000 deaths. Thus, about 10% of the population at that time were sick with malaria (118). Side by side with this reduction in mortality is the increase in life expectancy (Table 141). Over a period of 73 years, 1902 to 1975, life expectancy for females has increased 4.3 times from 13.9 to 60.4 years and, for males, 4.9 times from 11.5 to 56.7 years. The Philippine situation has often been described as a western death rate with an Asian birth rate; hence a runaway population.

All these trends in death reduction and prolongation of life have been cited to emphasize the role which modern health and medical technology has played. Although we seem to have accepted very readily this technology, how are we doing with respect to measures for population control?

General characteristics of family planning methods

One of the most important ingredients in family planning as an approach to the population problem is the technology available to bring this about. A considerable amount of financial and scientific input has gone into the creation, development, and perfection of this technology, much of which we have imported and adopted for our own use. Regarding the characteristics of contraceptive methods, the report of the Committee on Human Reproduction of the American Medical Association is particularly useful:

(1) The thrust of research efforts is "to develop methods that will not only be effective but will meet the widely varying needs of individuals according to their religious beliefs, cultural mores, socio-economic backgrounds, and intellectual and emotional motivations." Prospective acceptors, therefore, have an opportunity to choose which method is preferred, not only biologically but socioculturally.

(2) "As a medical art, contraception is no more simple than any other - indeed it has complexities entirely peculiar to itself. For one thing it does not protect against illness or death, but against a quite normal physiological process..."

(3) All but two of the medically accepted contraceptive measures (hormonal control of ovulation and intrauterine devices) involve direct or indirect interference with the sexual act, a characteristic that inevitably arouses resistance to their use. Finally, the concept that a child can be detrimental to the family welfare is foreign to many cultures and abhorrent to others, as is the notion that it is possible or even desirable to attempt a modification of anything so private and so personal as the sex life of a couple...

(4) Contraception may be used in three ways: to postpone first pregnancy, to space between pregnancies, and to avoid pregnancy altogether...

(5) There is no such thing as a single best method but certain criteria may be applied in choosing a particular method such as: safety, effectiveness, acceptability, cheapness, and feasibility of application without medical supervision.

Safety refers to relative freedom from undesirable side-effects; effectiveness depends upon the degree to which a method succeeds in preventing a pregnancy if this is in fact what is desired; acceptability means the extent to which couples will actually use a method.

In general, available birth control methods may be classified as follows: (a) Oral hormonal contraceptives, which are commonly referred to as "pills," suppress ovulation; (b) mechanical contraceptives, which include intrauterine devices and other mechanical means, designed to serve as a barrier between the sperm and the cervical opening; (c) chemical contraceptives which act as spermicides; (d) rhythm method which is based on the rhythmic occurrence of fertile and infertile days during the menstrual cycle and on the avoidance of intercourse at the time the woman is most likely to conceive; (e) coitus interruptus involves a man's withdrawal before ejaculation; (f) surgical sterilization of either the man or the woman in order to render him or her incapable of having children (90). These methods have different characteristics which offer a wide range of choice to those who want to practice family planning and, of course, *abortion* or the termination of pregnancy and abstinence are other possibilities.

Wive's exposure to and use of family planning services

Since high population growth rate is defined as a major development problem in the Philippines, the government has a national family planning program pursued with the support and cooperation of private as well as international agencies. We realize, however, that unless family planning services are made available, accepted, and used, family planning will not be an effective measure to reduce birth rate. Filipino wives' exposure and response to the family planning program and its accompanying services are examined in this section.

Table 142 presents the typical inverted pyramid from awareness to actual use of practice. About 58% know of a family planning clinic. But only 16.6% have actually used a method learned from the clinic; 10.5% still use a method; and only 7% will visit the clinic again. We have yet to fully understand why 42% of the target audience do not know of the clinic; why those who know of the clinic do not visit it; why those who visit the clinic do not accept a method; and why those who use a method do not plan to visit the clinic again. One suspects that the women who do not know of the clinic are the women we would like most to reach. Who are they? This is a major *communication gap*. But the inverted pyramid is a more frustrating phenomenon because the audience has been brought not only into awareness but into the clinic and yet acceptance and continuation of practice still lags behind. However, even more important is the high proportion (57%) of married women under age 45 who do not want to learn more about any family planning method; the 36% who have never discussed family limitation with friends, relatives, and neighbours; and the 42% who do not know of anybody who is practicing family planning. The only encouraging note is the 43% who have not visited a clinic but would like to do so. In matters of awareness of, actual visits to, and use of the clinic services in family planning, the urban wives have a decided advantage over their rural counterparts. Discussion with others and knowledge of persons practicing family planning is also more characteristic of urban than of rural wives.

The inverted pyramid is evident once more in Table 143 with a declining proportion from naming or recognizing a family planning method to knowing how to use and actually using it. Again, Metro Manila leads the urban and rural sectors in actual use of method. The most popular method is the pill, followed by rhythm, withdrawal, IUD, female sterilization, condom, foam, etc. But even the most popular method, the pill, has been used by only 14% of the target population of wives under age 45. Rural women are, again, the less "practicing" sector.

An analysis of sources of information for currently married women under age 45 reveals some interesting trends. Comparing urban and rural women, more of the latter than of the former have heard of at least one family planning method from friends, relatives, and acquaintances; from the radio; from lectures and meetings; and from home visits by field workers. More urban than rural women have heard and/or have learned of a method from their visits to doctors or clinics, and from printed matter. Although personal and institutional sources remain important for everyone, it should be noted that urban wives tend to obtain the information at *their own initiative* through their visits to the clinic, the doctor, etc. On the other hand, rural wives *are told* the information when they are visited in their homes by the nurse, the midwife, or the field worker. This is a very important distinction because it could be a reflection of different levels of motivation. Urban women seek out information, but rural women have to be sought (Table 144). A similar observation has been made in the diffusion of agricultural innovation. Farmers obtain information from visits by the extension worker but rarely do they visit the latter. The reasons for not going to the extension workers' office are that it is

not necessary and they are too busy with farm work (76, p. 124). It would not be surprising if the same reasons would be given by the rural wives for not visiting the clinic.

Although family planning is a national program and the government has adopted a policy of curbing population growth, Table 145 shows that we have a long way to go in terms of communicating that message to our child-bearing population. Thirty-three percent of married women under age 45 do not know the Philippine government's views on family planning. As a matter of fact, 2.4% of Metro Manila respondents think family planning has been declared illegal. Is it possible that some audiences receive a saturation of messages while others do not receive anything at all? Who are these women? Again, more of the "don't knows" are in the rural areas. We have a long way to go not only in inducing the use of family planning practices but even in getting the idea approved in the first place. Only 56% of rural respondents approve of family planning (Table 146); the rest disapprove, are ambivalent, or indifferent. The regions with the highest proportions of eligible women approving the practice are Greater Manila, 79.5%; Central Luzon, 70.9%; and Southern Tagalog, 66.8%. The highest proportion of women disapproving of the practice are from Cagayan Valley and the lowest proportion approving of it are from Southern Mindanao, the region which reports the largest family size. Family planning as a community norm has yet to crystallize in a significant way. More than 35% of eligible women do not know if their barrio approves of family planning, with Bicol and Southern Mindanao the most in the dark. In general, personal approval is greater than their perception of barrio's approval of family planning. A hard-core resistance is likely to be encountered in the 16% of rural respondents who categorically disapprove. Cagayan Valley registers the highest proportion of women who disapprove. The challenge here is twofold: to reach the indifferent and the don't knows, and to convert those who disapprove.

From what we read in the newspapers and from what we commonly hear, we would think that abortion or deliberate termination of pregnancy would be repulsive to our moral values. It is not surprising that about 20% of eligible women are aware of someone who has resorted to this measure (Table 147). But it is surprising that about 16% of them approve the practice unconditionally and more than 20% approve under certain conditions. Only one-third disapprove categorically and 28% do not know. We had expected a higher proportion of women who would be against the practice. Perhaps, eligible women who are vulnerable to the risks of unwanted pregnancies are permissive because they are potential users of such a practice. This is speculative, however, and needs to be investigated for its own sake.

Continuing use of, beliefs about, and fertility effects of family planning methods

Most family planning methods except for sterilization require continuing use, availability of supplies, or followup if they are to be effective in averting births. The previous section has already shown us a pronounced inverted pyramid with a steeply declining proportion of eligible women, from awareness to actual practice. To what extent do acceptors persevere in their practice? The 1974 National Acceptor Survey conducted by the U.P. Population Institute provides us with considerable and systematic insight into this phenomenon. The report showed a significant downward trend in continuation rates among succeeding groups of acceptors with the decline being especially pronounced between 1970 and 1971 but continuing between 1971 and 1972. Furthermore, there is evidence that the number of *reported* new acceptors is much higher than the number of *actual* acceptors new to the national program; hence, the inverted pyramid is probably even narrower at the bottom tip than what had been suggested earlier.

Laing and Phillips identified a number of factors associated with continuation rates (196, 273): (a) Continuation rates are substantially higher for IUD adopters than for any other method and this appears to be attributable to the nature of the device itself rather than to underlying characteristics of IUD users. (b) Related to the above observation is the higher continuation rates among acceptors at postpartum than among acceptors from other types of clinics mainly because they are most likely to have IUD's inserted and not likely to accept rhythm or condoms. (c) As expected, urban acceptors have the higher continuation rates, followed by those from poblacion, and the lowest rates are for rural dwellers. Acceptors in the Bicol region have especially low continuation rates; whereas, those from Central Visayas including Cebu City have relatively high rates, even with their preferred methods of rhythm and condoms, which are

generally considered the least effective. (d) Age, length of marriage, and number of children are positively correlated with continuation rates. Predictably those who at the time of acceptance said they would like to have more children show consistently lower continuation rates than those who said they did not want more. Philipps, however, argues that "desire for additional children at the time of acceptance does not appear to have an important influence upon continuation. Thus women who stop family planning do not seem to plan in advance to do so. Such decisions seem to be more a consequence of inconvenience, ill-effects, and anxieties about methods than conscious decisions to plan to have children." (e) Higher continuation rates are likewise observed to be positively correlated with education of both wife and husband, household income, and occupation. Wives of nonmanual workers have higher continuation rates than wives of either nonmanual workers or farmers. Housewives also have lower rates than working wives. (f) Those who have used contraceptive methods before accepting one at a clinic and those who have received physical examinations and were asked health histories before acceptance have higher continuation rates than those who have not. (g) Continuation rates tend to be highest among those acceptors who are informed about the program by, or received their first method from, physicians and lowest among those whose initial contacts are with nonmedical persons. Pill acceptors who have never visited the clinic have much lower continuation rates than those who have gone at least once to the clinic, probably as a result of poor field followup among those who have received their initial supplies at home. Pill acceptors who pay for their supplies have higher continuation rates than those who do not, perhaps largely as a function of the positive correlation between socioeconomic status (education and income) and continuation rates. (h) Phillips found that among pill, condom, and rhythm acceptors over age 25, husband's support is an important predictor of continuation. Women in this group who do not have their husband's support have very low continuation rates. Because condoms are devices used by the husband and rhythm requires abstinence during the fertile period, it is understandable that husband's approval is indispensable. However, in the case of pill users, Laing found that "the problem of side-effects was important in reducing husband's support for family planning. Of those acceptors (9 percent) who said that their husbands had tried to discourage them from trying family planning, 70 percent attributed this behavior to their husbands' concern for their wives' health. Only 20 percent said that the husband opposed family planning because he wanted more children..."

The immediate reasons mentioned for discontinuing use of their first method of contraception within the first two years after acceptance are given in Table 148. It will be noted that condoms had the highest percentage of adopters who discontinued use, 85.2%; followed by pill users, 64.7%; rhythm, 59.7%; and IUD, 43.0%. Reasons for termination differ for each method, with inconvenience and difficulty of obtaining supplies as a major reason for condoms; pregnancy and inconvenience for rhythm; side-effects and IUD expulsion for IUD; and side-effects for pills. The authors of the report believe that the problem of resupply for pills and condoms is not clearly reflected in Table 148. When asked how many pills they had last received from the clinic, 69% had received a supply sufficient for only one cycle and only 13% had obtained enough for three cycles or more. The average number received was for 1.5 cycles and almost 40% indicated they were dissatisfied with the number received. In the case of condoms, the average number last received from the clinic was 4.5, which they said was sufficient for about a month. This number implies either irregular, multiple, or reuse of condoms, which would reduce effectiveness when used. It is not surprising, therefore, that of the four methods studied condoms stood out as the least effective. Pills and rhythm were equal in effectiveness, but the IUD is the most effective.

Considering the differentials in continuation rates and effectiveness, it is necessary to examine the factors that influence method selection. Table 149 shows that the sources of information about the clinic, the description of services that they are first exposed to, and the prescription of first method differed by method accepted. The family planning worker or the lay motivator was a significant source of information about the clinic and its services. This is understandable since there was a major effort in 1971 to recruit lay motivators who were assigned to clinics to contact eligible women in their homes, explain services, and encourage women to accept family planning. They were the major information source for condom and rhythm, not only about the clinic but about its services, and even in the prescription of these two methods. Since the lay motivator program was a major thrust, it is not surprising that these two less effective methods (condoms and rhythm) appear to have been promoted the most. About one-quarter of pill and IUD acceptors were informed about the clinic by friends and relatives, but this

is just for initial awareness. The doctor as the main expert was primarily responsible for prescription of IUD, which is the most effective method. The midwife and the nurse shared the responsibility with the doctor for the description and prescription of the pills, but the latter had the greater part. Practically all pill and IUD acceptors had attended the clinic, but about one-quarter of other method acceptors had never been to the clinic. The inadequacy of these personal contacts with lay motivators and other clinic staff is, however, revealed in the acceptors' complaints that there was no printed information given and that they would have liked more information about the method than they had been given. Only about 10% complained that it was difficult to ask questions or that clinic personnel became angry with clients. In other words, there is an *information hunger* that has not been satisfied and that has probably contributed to misconceptions and anxieties about the method, particularly for the pill and IUD acceptors who express greater desire for more information.

All these observations lead us to conclude that what is accepted depends upon what is communicated and who brings the message, which in turn determines the effectiveness of the "technology transfer." In the case of nonpermanent family planning methods, the need not only for continuing support communication but also followup and resupply cannot be underestimated in the light of the high dropout rates. The goal in such cases is *continuing adoption* not just *adoption*. As Phillips points out: "workers are *new acceptor oriented* rather than *contraceptive protection oriented*. One or two cycles of pills are issued on the average and evidence suggests that meager supplies are associated with short term use. Although side effects are a major concern of pill acceptors, follow-up is rare. Unfounded fears about methods can grow in a program which does not provide on-going care for its users." The reward system for family planning workers is quite instrumental in determining whether the program should emphasize new acceptors or continuing users. One can make a case for focusing on the latter as a strategy for winning new adopters because nothing succeeds in diffusing a technology better than a successful demonstration of it. Dropouts have a negative demonstration value, which diffuses even faster than a positive one.

Because family planning methods are very personal, intimate practices involving the human body, beliefs about them tend to be held rather strongly even by those who have never used them. Table 150 lends support to this observation. The data on specified beliefs about each of the four methods tell us a number of things:

For every method and every specified belief the *nonusers* have more *negative views* than the users, whether it be effectiveness, health implications, sinfulness, pain, difficulty of using, unpleasantness, or contentment. This makes it doubly difficult to reach the nonusers.

Despite the fact that acceptors are predominantly Catholics, less than 10% consider the pill, IUD, and condom as sinful.

The pill and IUD are regarded as the most painful and most harmful to health but highly effective (especially the pill), and not unpleasant or difficult to use. The beliefs regarding effectiveness do not correspond to reality because beliefs rank them in the order: pill, IUD, condom, and rhythm, while the findings indicate the order: IUD, pill, rhythm and condom. The beliefs of nonusers follow the same pattern.

Although rhythm is more favourably rated with respect to health, morality, comfort, and pleasantness, the pill is regarded as highly effective and is used more than rhythm. Laing thinks that this can be explained largely by the promotional efforts of clinic personnel. While 89% of the respondents said they have been offered pills at the clinics, only 44% have been offered rhythm. Sixty-nine percent have been offered the IUD and 51% have been offered condoms. Of course, as cited earlier, rhythm and condom users appear to have obtained their information and prescription more from lay motivators, through home visits, and more of them have not visited the clinic.

Effective methods are believed to be more hazardous than less effective methods. The condom, while it is not regarded as a particularly pleasant method to use, is considered safer than the IUD or pills, and almost as effective as the IUD. This is a misconception because data indicate that the condom is the least effective of the four methods.

Considering the more negative content of nonusers' beliefs and the erroneous beliefs of both users and nonusers, the challenge in the diffusion of family planning technology is not only to reach more potential users but also to correct errors in

knowledge in order to promote the most effective methods. It is interesting, however, that both users and nonusers have interpreted methods other than rhythm as nonsinful; hence, this particular aspect of their beliefs does not seem to present a handicap in their acceptance of the method.

Because the ultimate test of family planning effectiveness is fertility reduction, Laing et al. estimates that the expected fertility of interviewed acceptors following the date of acceptance (standardized to control for the effect of aging) was 401 births per 1000 woman-years of exposure. Following acceptance, fertility declined to 200 - half of the expected level. The percentage reduction in fertility following acceptance varied considerably by method, from a high of 74% for IUD acceptors to a low of 27% for condom acceptors. There was very little difference between pill and rhythm acceptors; both fell midway between these two extremes. Important differentials were observed with the following subgroups exhibiting low fertility reduction: acceptors in 1972; acceptors at city health department, Family Planning Organization of the Philippines (FPOP), and provincial program clinics; acceptors in Bicol and Southern Mindanao; acceptors with low education; wives of farmers; acceptors who received first method from motivators or midwives; and those whose husbands tried to discourage them from practicing family planning.

Fertility reduction was especially high among the following subgroups: acceptors at postpartum clinics; acceptors in Central Visayas and Greater Manila; highly educated acceptors; wives of nonmanual workers; acceptors with occupations other than housewife; acceptors who received their first method from a doctor; and urban acceptors.

It is obvious from all these findings that rural farm wives, most of whom have little education, less access to doctors, and are less likely to use postpartum clinics, would have the lowest fertility reduction. Because they also tend to have the greatest number of children, the lowest incomes, are the least exposed to family planning information, and make up the majority of women, it is also obvious where the greatest challenge lies if we are to substantially reduce our rate of population growth.

SUMMARY AND CONCLUSIONS

Food and population are the two most crucial development problems we have at the moment. To illustrate the relationship between these two problems, data over a 27-year period from 1949 to 1975 show that despite the substantial gains in rice production, per capita availability of rice has not really increased but has slightly decreased. In order to increase food supply and to reduce the population growth rate, agricultural technology and family planning are the two major instruments used. Since food most everywhere is produced by farmers and since 70% of our population are rural-based, the principal target clientele for both agriculture and family planning is the farm and rural population. But unless these technologies are communicated, diffused, and adopted by the relevant target groups, they will have no impact on our problems. This chapter describes the technology transfer process for rice and other agricultural technology; farm mechanization; and family planning.

Agricultural technology

Channels of communication and sources of information

Studies of farmers' sources of information have shown the importance of personal sources such as extension workers and other knowledgeable persons who could be other farmers, neighbours, friends, relatives, etc. Individual channels rather than organized group approaches or mass media are the most common means by which information reaches farmers. A nationwide study of rice and corn farms shows very low extension exposure even in places regarded as priority areas. Furthermore, most of extension contacts with farmers are initiated by the extension worker and very seldom by the farmer. It is encouraging, however, that the majority of the farmers use other sources of agricultural information such as the radio and neighbours. The reinforcing role of the radio is an intriguing one because information-seeking from the radio tends to increase among those with more exposure to extension workers. The importance of interpersonal communication

in combination with mass media has been emphasized because there is a prior need to educate farmers on the usefulness of agricultural information before they can find a reason for turning to the media for this information. Persons used as sources of farming information are chosen by farmers on the basis of their technical competence, knowledgeability, or that farmers actually see them using the farm practice. Often they are the ones who teach the practice to the farmer or they are innovators or first adopters who serve as models to imitate. Interpersonal communication networks are found to be dyads or to be made up of two persons only; hence, the flow of information by radiation is likely to be slow. In designing communication strategies for technology transfer, it is crucial to identify the major decision-makers in farming operations, for they are the ones who should be convinced that an innovation is worthy of adoption.

The adoption process

By analyzing 90 case studies of the individual adoption process using seven stages (problem-perception; awareness of the innovation; interest; evaluation; trial; adoption; and resolution) as a frame of reference, a number of observations relevant to technology transfer have been made: (1) In many instances, adoption of an agricultural innovation proceeds with little, delayed, or no conscious perception of the farm problem, which the innovation is supposed to relate to; hence, many adoptions are virtually cases of imitation rather than a rational problem-solving procedure. (2) The trial stage is absent in 80% of the adoption cases, suggesting that late adopters have seen the farm practice elsewhere and, therefore, they do not have to go through this stage themselves. (3) Sixty percent of the cases do not include the interest and evaluation stages, which means that there was no effort to seek additional information and weigh the pros and cons of the innovation. Some of them rationalize or justify their adoption behaviour afterwards. One can infer from all this that adoption in the majority of instances occurs with less than adequate knowledge and only a vague definition of the relationship between the farm problem and the innovation that they are adopting.

Adapting to the changes involved in adoption of new technology

The process of adopting to the changes brought about by the adoption of new technology is illustrated by the experience with the new rice varieties. For this purpose three groups of farmer adopters were identified: the persistent adopters, the progressive adopters, and the dropouts. Farmers indicated that their work life, while growing local versus new rice varieties, was different because the latter was more laborious, time-consuming, and expensive, and hence they had a greater concern for crop outcome. To adapt to the new work problems, there were more discussions with family members to obtain their cooperation. Dropouts differed from persistent and progressive adopters in that they regarded their work life as similar to their work life before the new varieties. They also had poorer yield performance and general disenchantment with the new seeds, which eventually led them to revert to the old varieties. Contrary to the usual expectation, the dropouts had larger farms and more leaseholders, and the other two groups had smaller farms and more share tenants. However, the most significant factor which distinguishes the dropouts from the "progressives" and the "persisters" is that the majority of their farms are rain-fed, while the others were mostly irrigated. This probably explains the poor performance and eventual disenchantment with the new seeds.

In the adaptation process, farmers relied heavily on the government extension workers for their technical expertise and on the successful practical experience of other farmers and neighbours. It took them one cropping season or less to learn the new farm activities, some of which they disliked and found difficult, but nevertheless they proceeded albeit with reluctance, annoyance, and self-sacrifice in the hope of better outcome. Considering the frequency of technician-initiated interactions with these farmers, the latter have pinpointed them as key decision-makers in their farming activities. Thus, wittingly or unwittingly, extension workers are a major management input.

Patterns of early adoption

From the extensive studies of farmer response to the new rice varieties, a number of early adoption patterns emerged: (1) They tended to use extension workers as the main source of information at all stages of adoption; whereas, late adopters depended on other farmers. (2) Compared with late adopters, early adopters devoted a smaller portion of their farm to the new varieties. The latest adopters planted new seeds on their entire

farm. (3) Adoption of the new varieties also meant adoption of a package of practices. (4) Early adopters also planted more varieties - a combination of old and new for "insurance" purposes in case the new ones failed. (5) Different varieties were used for wet and dry season crops. (6) Irrigated farms responded earlier than rain-fed ones. (7) Changes in cropping patterns occurred in many places owing to the nature of the variety and the advantages of irrigation.

Adoption patterns over time

Over an 8-year period, 80% of the irrigated and one-half of the rain-fed areas were planted to the new varieties. Total rice production from new varieties increased from 27 to 71%. Although the new varieties have consistently outyielded the traditional rice, the difference in yield of the irrigated versus the rain-fed for both types of rice is greater than the difference in the new variety versus the traditional variety, even within the irrigated area. There is a wide gap between the potential and actual yield performance of the new varieties.

The role of agricultural extension

Where farmers are poor and have minimum education, the extension worker's role cannot be underestimated. He is the principal conduit for agricultural technology, knowledge and skills, credit, organizational services, land reform, and general development information. Farmers, now more than ever, recognize the value of competent and more frequent contact with extension. It has been shown that extension substitutes for the effects of schooling in less developed villages and, in the more developed ones, extension and formal schooling complement each other to increase rice production.

Farm mechanization

Except for the plow and the harrow, which are the most essential farm equipment, Philippine farming is far from being mechanized agriculture and whatever mechanization is taking place is concentrated in Central Luzon. The small proportion of farms who use tractors and threshers do not own the machines, but rent them from others. The introduction of farm machinery in the Philippines in recent years involves a different target clientele at different stages: from designer to manufacturer; to credit institutions, distributors and machinery services; and finally from machinery owners to farmer end-users.

From designer to manufacturer

The technology transfer process starts from the machinery designer's drawing board to the local manufacturer, but the designs are also "transfers" in the sense that they are modifications of known designs. Adaptation of design to local conditions benefits from interaction with farmer users. The second phase involves extension work with local manufacturers so that they can develop prototypes and later mass-produce the equipment. The next stage is field testing and demonstration of equipment, and then, finally, there is an attempt to introduce the whole concept of farm mechanization to policymakers.

A significant parallel exists between the experience with the diffusion of farm equipment and that of the new rice varieties. The early adopter (a large company) served as the trial stage for the small metal working shops who went into power tiller production later. Furthermore, technical assistance and personal contact between designers, local manufacturers and farmers also played an important role in its acceptance. Successful transfer of technology from designer to local manufacturer is reflected in the tremendous increase in the sales of locally produced power tillers.

Although we have this success story, other concepts of farm mechanization for postharvest purposes have failed to materialize such as an idealized, village-level, intermediate inexpensive farm drying concept which, to date, remains a concept. Another is the attempt to replace the *Kiskisan* of small traditional, inefficient rice mill with a more efficient one. The old machine is inefficient, but is simple, compact, rugged, of low cost, and has low maintenance. The loss in milling recovery is a loss to the farmer and to the country, but not to the *kiskisan* owner; hence, the incentive to change is not there.

Institutional credit, distribution, and machinery servicing

The Central Bank, through the rural banks, tried to facilitate technology transfer

through a credit program for farm mechanization (mostly four-wheel tractors and power tillers) from 1966-73. Over a 7-year period, only 26% of total operating rural banks had been involved and each participating bank only had an average of seven borrowers under the program. Few of the banks had any promotional activities and many nonborrowers did not know about the program. Loan repayment was a problem despite the fact that clientele was biased toward larger borrowers. The machinery dealer and his agent played the most important facilitative role in obtaining the loan and choosing the machinery and accompanying implements. Naturally, there were problems associated with such arrangements where the "extension agents" (the dealers) had their own vested interests in the sales. Machinery servicing was often poor and not always available. Repair shops, however, reported that many of the machine problems could be traced to carelessness in the maintenance of the machine. This has resulted in many hours of machine idleness due to repair work.

Machinery owners and farmer users

Between the machinery owners and the farmer users are the tractor operators who directly handle the machine and perform the land preparation for either the machinery owner himself or for the farmer custom-service user. Competence and skills are required at this level too. Furthermore, as in many other aspects of rural life, custom-service operators need to establish good personal relations with their clients, the farmer users, by way of deferred payment of service fees until harvest time. Although the majority of machinery owners who obtained loans were not mechanized before, there has been a definite increase in this practice, especially in land preparation. Regular use of tractor services is done for timely scheduling of farming operations. The farmer's time and energy saved is spent on other farm and family-related activities and for leisure. Reduction in time and labour spent for land preparation is one of the effects of farm mechanization. Exchange labour for this purpose has also been drastically reduced. Despite the tractor and the power tiller, the carabao has remained useful, for the animal is needed to cultivate corners of paddy fields that tractors cannot work on.

In summary, we can say that transfer of farm mechanization technology requires a number of intermediate clientele without whose acceptance, the technology will never reach the farmer end-users. All of them bear risks at different stages of the technology production, diffusion, and use: the manufacturers bear the risks for producing the machine; the credit institutions for lending the money with which farmers can acquire the machine; the farmer purchaser-owners for investing in such an expensive machine. The farmer owners who hire out the machine for custom work take the risk of machine breakdown, unskilled handling by tractor operators, and delay or nonpayment of fees by users. Finally, the farmer end-user who hires the custom service bears the least, or no risk at all, except for the fact that the tractor may not come at the time he needs it. At any rate, the greatest risks in the adoption of farm mechanization at this stage in our agricultural development are borne by the manufacturers, the banks, and the farmer purchaser-owners. Small farmer users hardly bear any risk at all in adopting the use of the equipment. While the CB-IBRD credit program has been criticized for being biased toward larger farmers, the previous discussion has shown that tractor owners do not necessarily benefit from their possession of such a machine. As a matter of fact, they could be worse-off because of the high investment and high cost of operation, repair, and maintenance. It can be said that those who acquire loans to purchase tractors and power tillers have in many ways made it possible for small farmers to benefit from mechanization without having to shoulder the heavy risks which the borrowers themselves have to bear.

Family planning methods

Wives' exposure to and use of family planning services

A rapid decline in death rate and an increase in life expectancy side by side with a continuing high birth rate has contributed to our present population problem. Family planning as an approach to this problem uses a number of contraceptive methods such as the pill, the intrauterine device (IUD), rhythm, chemical contraceptives, coitus interruptus, and sterilization. Abortions also take place, but illegally.

Continuing use of, beliefs about, and fertility effects of family planning methods

The 1974 National Acceptor Survey showed a significant downward trend in

continuation rates among succeeding groups of acceptors between 1970 and 1972. Moreover, the number of reported new acceptors is much higher than the number of actual acceptors new to the national program. Higher continuation rates were observed for acceptors who: used IUD; accepted method at postpartum clinics; came from urban areas; were older; were married longer and had more children; had higher education, income, nonmanual occupations; were working wives; received first method from physicians; visited clinics; and had husband's approval. Condoms had the highest percentage of discontinued use, followed by pill users, rhythm, and IUD. Reasons for termination differ for each method, with inconvenience and difficulty of obtaining supplies as a major reason for condoms; pregnancy and inconvenience for rhythm; side-effects and expulsion for IUD; and side-effects for pills. As in the case of agricultural technology, sources of information about family planning methods are mostly personal ones such as the lay motivator, clinic staff, friends, and relatives. The particular method accepted is very much influenced by the source of information. The effectiveness depends upon continuing adoption which needs continuous followup and availability of supplies.

Beliefs about family planning methods tend to be held strongly even by those who have never used them. For every method and every specified belief, nonusers have more negative views than users whether it be effectiveness, health implications, sinfulness, pain, difficulty of using, or unpleasantness. Effective methods are believed to be more hazardous than less effective ones. Although the majority of acceptors are Catholics, very few regard pills, IUD, and condoms as sinful. Both users and nonusers hold many erroneous beliefs about these methods.

In terms of effects on fertility reduction, the highest are IUD acceptors, followed by pills and rhythm, and the lowest are condom acceptors. High fertility reduction is evident among acceptors at postpartum clinics; acceptors in Central Visayas and Mindanao; highly educated acceptors; wives of nonmanual workers; acceptors who are working; those who receive first method from a doctor; and urban acceptors.

From all these findings we can conclude that *rural farm wives*, most of whom have little education, less access to doctors and postpartum clinics, are the least exposed to family planning information, have the lowest incomes, and the largest number of children, and make up the majority of eligible women, should be the most significant targets of our family planning programs.

CHAPTER X

THE POT OF GOLD AT THE END OF THE RAINBOW: INTERNAL MIGRATION TRENDS IN THE PHILIPPINES

Although the Philippines has a reputation for having a highly skewed income distribution with only a small percentage of the population controlling the bulk of the nation's wealth, this has not prevented the Filipino from looking for his own "pot of gold at the end of the rainbow." He sends his children to school so that their future might be brighter than his present. He also moves from the land of his birth in search of "greener pastures" elsewhere. These movements from one part of the country to another have not occurred randomly but along certain directions, thus resulting in *population maldistribution*. But this population maldistribution is to a very large extent a product of wide rural-urban and interregional disparities in resource endowments, distribution of social services, and overall development investments. The problems of exploding Metropolitan Manila usually attract more attention and resource allocations than the deprivations of the underdeveloped village because the primate city is the country's "image" to the rest of the world. Because it is the nerve centre of the nation's economic, political, social, and cultural life, there are very aggressive programs, not only to keep it alive and well but also to make it beautiful and elegant, befitting its status as the heart of the nation. Ironically, the vitality, dynamism, and elegance of this metropolis has well-earned its payoff in terms of magnetism for many Filipinos living elsewhere. We have thus unwittingly created some kind of a *dual society* for the Philippines composed of *Metropolitan Manila* and the *rest of the country*.

The consequences of such a development have now become so overwhelming that population maldistribution has become one of the critical concerns of programs in human settlements, industry dispersal, alternative growth centres, and even rural development. The expressed objective is to deflect rural-urban migration and to reduce regional rural-urban imbalances, although the National Economic and Development Authority (NEDA) refers to present migratory movements "as an irreversible trend from the rural areas towards major urban areas, in particular, Metropolitan Manila" (242). Motivating rural people to stay where they are is, therefore, a major preoccupation or at least a major pronouncement of development planners. Rural development is currently being conceived and endorsed as an instrument for abating rural-urban migration or a "counter-magnet" to the lures of the city.

This chapter describes the following aspects of internal migration and raises some policy implications: (1) Patterns of internal migration: magnitude and directions of in- and out-migration; (2) characteristics of the migrants; (3) slums and squatters - the "ugly" side of rural-urban migration; (4) experiences which accompanied migration to frontier areas; (5) some attempts to "influence" population distribution; and (6) some policy implications.

Patterns of internal migration: magnitude and directions of in- and out-migration

Based on Census figures, 12.8% of the population in 1960 and 13.5% in 1970 could be classified as migrants (275, p. 11). The 1973 National Demographic Survey, which is a joint undertaking of the University of the Philippines Population Institute and the National Census and Statistics Office, provides more detailed information on migration. Of the 22.5 million persons 15 years old and over (weighted sample) in 1973, about 35% were migrants. Of the total migrants, 82% moved once; 15% moved twice; and 2% moved thrice between birth and 1973 (262).

To identify interregional and interprovincial population mobility trends, Table 151 is presented. Pascual in her analysis of internal migration from 1948 to 1960 used the differential between the national average percentage increase in population and the percentage provincial increase as her indicator of provincial growth or decline due to in-migration or out-migration. For the period 1960-70, Yun Kim used the census survival

ratio method as a measure for net migration by taking the difference between net population change and natural population change. Comparing the 1948-60 with the 1960-70 period, Table 151 shows that certain provinces have shifted in their role as "gainers" or "losers." Of the 24 provinces listed by Pascual as high gainers in 1960, five have become losers in 1970. These are Lanao del Norte, Lanao del Sur, Camarines Norte, Mt. Province, and Camarines Sur. On the other hand, among the 30 low gainers in 1960, all of them have become net losers in 1970, except for the provinces of Bulacan, Batangas, and Nueva Ecija. Looking at the net losers by region, they are: Region I, City of Manila; Region II, Ilocos and Mt. Province; Region VI, Bicol and Masbate; Region VII, Western Visayas; Region VIII, Eastern Visayas; Batanes and Cagayan in Region III; Pangasinan and Tarlac in Central Luzon; Marinduque in Southern Luzon; two Lanaos and two Misamis provinces in Northern Mindanao; and Sulu in Southern Mindanao. There are 31 loser provinces and 21 gainers (Table 151). The Ilocos Region, Eastern and Western Visayas have persisted as out-migration provinces with the Bicol areas joining them in a substantial way, except for Masbate which has registered only a minimal net gain. On the other hand, Bukidnon, Davao, Cotabato, Agusan, Nueva Vizcaya, and Rizal have continued to be recipients of in-migrants. Of these gainers, however, the province of Rizal has registered a net influx of 784 662, which is 43% of the total net gain by 21 provinces, amounting to 1 703 805. When one considers that Bulacan, Laguna, Cavite, and Batangas (all net gainers) are very much within the expanded orbit of the Greater Manila area owing to the North Diversion Road leading to Central and Northern Luzon and the South Superhighway leading to Southern Luzon provinces, the most dominant migration trend in the country is toward the *urbanizing* or, more accurately, the *suburbanizing* areas adjacent to Metropolitan Manila. If the net in-migration gains of Bulacan, Laguna, Batangas, and Cavite were added to the net gains of Rizal, the total would be about 50% of all the gains made by 21 provinces.

The next obvious question is: What makes people move out from certain provinces and into others?

In attempting to find explanations for migratory behaviour, all provinces were classified into four categories, based on density of population and net interprovincial migration (Table 152): (1) Low density provinces which registered net in-migration in 1970; (2) low density provinces which registered net out-migration in 1970; (3) high density provinces which registered net in-migration; and (4) high density provinces which registered net out-migration.

The Group I provinces all registered increases in number of farms with slight decline in the larger farms. This plus relatively low density serves as the major pull factors. In the case, however, of Palawan, Isabela, and the two Zamboangas, in-migration is of a low order despite the relative availability of farms. Palawan is the most sparsely populated province in the entire country, but it has failed to attract as many in-migrants. Movement into these areas represent a rural in-migration. Although data do not specify where the migrants come from, the nature of the loser provinces suggests a rural to rural move.

The Group II provinces are low density with net out-migration and closing or closed opportunities for farmland and low index of development. Samar is particularly "depleted" not only in terms of population but in terms of farming potentials. This state of affairs is probably accompanied by minimal infrastructure facilities which make life harsher than it is in other places.

The Group III provinces are already of relatively high density and the opportunities to farm are discouraging, but people are coming in great numbers, particularly to Rizal, Bulacan, and Laguna. Here, the attraction is closely related to the urbanization process which is rapidly engulfing the environs of the Greater Manila area. Furthermore, many of the "good things" in life are concentrated in these areas such as roads, transportation, communication, good schools, electricity, nonfarm professional and service-related jobs and, in general, it is the "hub of civilization." Movement into these provinces is toward an urbanizing area, except for Mindoro which registers an increase in number of farms.

The Group IV provinces have high density, low farming potential, low income levels, and high out-migration. Further insights into the patterns of migration are provided by Table 153. The out-migration regions of Ilocos, Cagayan, Bicol, Eastern Visayas, Western Visayas, and Northern Mindanao show lower income levels than the in-migration regions of Central and Southern Luzon and Southern Mindanao.

The in-migration regions are of two kinds: Northern and Southern Mindanao which are more agricultural in terms of employment and Central and Southern Luzon which are the

most nonagricultural among the regions except for Manila and suburbs (Table 153). The move to the former two regions is more toward the urban areas.

In order to examine the notion that people tend to move toward the more developed places where amenities and services are available, an index of total development is also included in Table 152. This index is a composite of the following measures: percentage of population that is urban, density, index of developed area, nonagricultural employment, proportion of college students, power consumption, government revenue, family income, and transportation facilities (air, land, and water). As expected, low density areas also have low index of total development as in the case of Group I provinces, but they have net in-migration, which seems to suggest that the prospect of farmland is a more potent pull factor than the low index of development is a push factor. For the Group II provinces, however, the net out-migration may be explained by a double negative factor of low index of development and little or no opportunity for farmland. The Group III provinces have high density, high index of development, closed farmland, except for Mindoro, but also a high influx of migrants. These areas make up the exploding urban centre. The Group IV provinces have medium index of total development, high density, high net out-migration, and closing opportunities for farmland. Would an improvement in index of development succeed in holding their population within its folds?

These observations are substantially reinforced by the findings of Zachariah and Pernia who concluded that: "Inter-regional migration during the 60's, and presumably rural-urban migration also, was determined more by the socio-economic conditions in the receiving areas than by those of the sending regions. The economic pulls of the Manila region and Mindanao were more important than the economic push factors in Visayas, Bicol, etc. The rate of out-migration did not show statistically significant correlation with any of the economic characteristics of the regions of origins, but showed significant positive association with the average family income, total acreage of unused agricultural land, and negative association with the proportion of poor in the rural population, and urban unemployment rate in regions of destination. Of these, the average family income at destination showed the strongest association which, together with the acreage of unused agricultural land, could explain about 45 percent of the total variation in inter-regional migration streams" (346).

To offset the limitations of Census migration data from which we could only deduce migration trends by examining provincial population gains and losses over time, reference is made to the National Demographic Survey of 1973 which gives more specific origins and destinations of migrants. From Tables 154 and 155, the following interregional trends can be identified:

(1) As a destination for out-migrants from Ilocos, Central Luzon, Bicol, West Visayas, and East Visayas, the most popular place is Metro Manila and this "magnetism" has become more potent for the 1965-70 migrants. Conversely, all the above-mentioned figures have diminished their movements toward Mindanao except for those from Central Visayas (Cebu, Bohol, and Negros Oriental) which has remained a major contributor to the Mindanao trek.

(2) Two types of short-distance moves are evident: from Ilocos to Cagayan Valley and Central Luzon and from Central Luzon to Metropolitan Manila. With respect to the latter category of short-distance migrants, Muijzenberg observed the phenomenon of temporary migrants or *circommuters* from Central Luzon who have jobs in Manila but are compelled to keep their families in the village because of the high cost of living. Hence, they commute periodically from Manila to their homes (337).

(3) More of a medium-distance rather than a long-distance move is the migration from Bicol to Metro Manila. Long-distance moves are from West Visayas to Metro Manila; East Visayas to Metro Manila; and Central Visayas to Southern Mindanao. The era of Ilocanos moving to Southern Mindanao has practically ended.

(4) The in-migrants to Metro Manila tend to come from all regions without very heavy concentration from any one particular source except that Central and Southern Luzon contribute a bit more than the other regions. In other words, Metro Manila seems to have a more "universal" appeal to migrants from different parts of the country. By contrast, migration to Southern Mindanao is characterized by a seeming special preference by Central Visayans.

Another way of analyzing population mobility is by migration streams between and within rural and urban areas. Table 156 shows both the broad and detailed migration

streams. Among the identifiable changes from one time period (Birth to 1965) to another (1965-73) are: (1) The decline of rural-rural migrants from 33 to 20% of total migrants; (2) the doubling of urban-urban and urban-Manila migrants from 12.7 to 25.2% with the major change being contributed by the increase from 28 to 50% of Manila-Manila migrants; (3) the persistence of the rural-urban movement as the major migration stream, although this type of migrants has dropped slightly from 43 to 39%; (4) the increase of urban-rural migrants from 11 to 16% with the Manila-rural movement contributing the largest increase. This development is an intriguing one which keeps open the slight possibility that the "return to the village" strategy may not be as hopeless as we think.

However, the sharp drop in rural-rural migration is probably a reflection of closing opportunities for agricultural land. Therefore, unless there are rural nonfarm activities, we cannot expect the urban-rural migration stream to escalate. The increase in the urban-urban and urban-Manila movements also has "closure" implications. As the Perez study found, out of the total 905 429 persons who came to the Metropolitan region during the period 1965-73, 55.0% came from other urban areas and only 45.0% came from rural areas. This could mean tighter competition for jobs and other things in Metro Manila; hence, potential migrants from the village who are less qualified than urban dwellers will be less able to survive in the highly competitive pace of the primate city. Manila, therefore, as a "land of promise and opportunity" will probably continue to lose its appeal for the "country mouse" and will be accessible mainly to the more sophisticated urbanites.

Another interesting sidelight is the relatively insignificant role of the poblacion either as an origin or as a destination of a migrant. This suggests that perhaps *stepwise migration* from village-poblacion-city-Manila is not very common. Migrants go to other rural areas or to Manila and other cities and then move within the urban orbit. The poblacion is not an attractive stop for many migrants because employment opportunities are limited and the typical poblacion is a sleepy town which usually comes alive only during fiestas. Many poblaciones have neither the farm potential of the village nor the vitality of the city.

Characteristics of the migrants

Besides the magnitude of the outflow and inflow of migrants to and from different parts of the country, one serious concern is the possible impact of these population movements on places of origin and of destination. Do out-migrants represent losses to the "sending" areas and do in-migrants represent "gains" to the "receiving" areas? Is there a selectivity in the characteristics of those who migrate?

The Zachariah and Perez studies established that migration propensities differ by sex, age, education, income levels, and occupation. Table 157 shows that females are more migratory than males (53% of migrants are females). In addition, there is a higher proportion of females than males among rural-urban migrants, particularly to the metropolitan region. On the other hand, there are more males than females in the rural-rural migration stream. In terms of age selectivity, Zachariah found that "migrants are positively selected at young adult ages, extending from age 20 to 40 in the case of males and from 15 to 35 in the case of females." From the same study, it was found that rural-urban migrants are selected from the more educated. As Zachariah summarized in his findings:

"The out-migrants from the rural areas had higher educational attainment than the non-migrants in those areas, or in-migrants to them. Among males, the difference in the average years of schooling was 1.6 years between those who went out of the rural areas and those who did not, and 1.3 years between out-migrants and in-migrants. The corresponding figures for females were 2.0 years and 1.3 years, respectively. Rural out-migrants who went to urban areas in other regions had the highest average years of schooling, 8.4 years compared with 7.7 years for those who went to urban places in the same regions and 5.6 years for those who went to rural areas of other regions. On the other hand, non-migrants in the urban places had a higher average educational attainment than the migrants who went to rural areas, 8.0 years for the former and 6.5 years for the latter. . As a consequence of migration, rural areas lost educational skills on two accounts: the number of rural-urban migrants was much larger than the number of urban-rural migrants, and the average educational attainment of a rural-urban migrant was higher than that of an urban-rural migrant. An estimate of this two-fold loss for the rural areas was 7.3 million "person years of schooling" of which 3.2 million was due to rural-urban migration within regions and 4.1 million was due to migration between regions."

Rural-urban migrants have higher average annual cash incomes than nonmigrants in the rural areas and of in-migrants to them from urban areas. In general, rural areas are losing their better-off people to the urban sector, while those who return to the village from the city have lower education and income than those who move out. The chances are that the "returnees" are those who failed to find their "pot of gold" and are probably the "dropouts" or "casualties" of urban competition.

A further inquiry into the selectivity of rural-Manila and urban-Manila migration streams is particularly valuable since the metropolis is the major destination of migrants. Table 158 shows that urban migrants to Manila have more professionals among them (48%) than those from rural areas (25%). Rural male migrants are 32% craftsmen and 22% professionals, whereas, 43% of urban male movers are professionals. The rural-urban difference among female migrants to Manila is even more pronounced because professionals among the female urban migrants amount to 59%; whereas, only 30% of females with rural origins belong to this occupational category. In fact, 33% of them are in service-type occupations, mainly domestic helpers. Predictably, urban-Manila migrants have higher cash incomes than rural-Manila movers, but females, both rural and urban, have much lower incomes than males who migrate to Manila (Table 159).

Perez likewise observed urban-rural differences in educational attainment for migrants to Manila: Most males with rural origins have high school education, but most of those from urban areas have college education. Females, especially the rural ones, have lower education. The majority of rural female migrants have only 5 to 7 years of schooling; whereas, those with urban origins have high school education.

Based on the data presented by the two studies reviewed on the selectivity of migration, we can conclude that, although rural-urban migrants are better-off than rural nonmigrants, urban-Manila migrants are even more highly selected in terms of education, occupation, and income. Given their common destination, Metro Manila, we can predict which group would be better able to survive the harsh life in Manila.

Slums and squatters - the "ugly" side of rural-urban migration

For some reason, discussions of rural-urban migration have always emphasized the "ugly side" - the slums and the squatters. Its virtues are never extolled, only its "illnesses." People who move from the province, go to college in the city and eventually find their "pot of gold" there are often cited as cases of successful vertical social mobility, but are almost never referred to as the positive side of rural-urban migration.

Because slums and squatter areas are the most visible evidence of the "exploding" city, they are simultaneously the objects of sympathy, legislation, prevention, and relocation. Illustrative of the expressed sympathy for squatters and the rationale for relocation is the following: "Everytime the sledge hammer rains its blow or the crowbars tear to pieces the squatter dwellings in the slums and estero colonies, we are moved, in the deepest recesses of our hearts by feelings of sympathy by the grim prospects for unwanted humans left to the chilling cold or uprooted of earning a living. But for the general welfare, prodded by the disastrous floods, fires and other multiplying social evils that have taken root in the squatter colonies, the sad duty must be done. The squatters must be relocated" (3). Government relocation programs have two general approaches, one of which is to "return the rural folks to their farm communities" and the second is "export the others *en masse* to the social resettlement laboratories" of Sapang Palay, San Pedro Tunasan, and Carmona. In practice, the stress has been on eviction and relocation to designated sites. Hardly anything has been done to return the rural folks to their farm communities. In some cases such as in Baguio City, a policy of positive accommodation has been pursued by setting aside through Presidential Proclamation No. 232 (July 14, 1967) some 18.9 ha of public lands close to the centre of the city for subdivision and allocation to people who are squatting on the land. They also set up a "Squatters Committee" to control and supervise the awarding of lots to individuals, and barrio councils were also involved in efforts to do something about squatters and slums. In Iligan City, a presidential directive to the Bureau of Lands in 1969 ordered the survey, subdivision, and distribution of land to *bona fide* tenants. Legal measures have also been resorted to: in Iloilo City the city engineers brought court complaints against squatters who occupied public properties by invoking Republic Act No. 2056, which prohibits taking possession of public navigable rivers and obstructing natural waterways. The squatters claimed that they were too poor to build houses on decent lots. This became a social justice issue, which was played up by the mass media, and as a consequence the case was "forgotten" (198).

Despite all the measures that have been taken, the trek toward the city and its environs continues and will probably continue indefinitely. Obviously, the complaints about squatters, their "unsightliness" and "sad" state, are not coming from the squatters themselves. Therefore, one needs to look at how squatters and slum dwellers view their own situation.

Laquian's studies in six cities give us some insights into such communities as City Camp - Rock Quarry, Baguio City; Pasil (Cebu City); Bolton Riverside, Davao City; Saray, Iligan City; Barrio Concepcion in Iloilo City; and Isla de Kokomo in Manila. Table 160 shows that squatting and slum dwelling is a widespread phenomenon in the city, as indicated by the number of places affected and the estimated proportion of the city population who live under these conditions. Further scrutiny of the data reveals the following characteristics of squatters and slum dwellers:

They tend to live near their place of work in the community or within walking distance. The cost of transportation is minimal and travel time is about half an hour or less.

Although there is a high proportion of one-room houses, some families enjoy two or three rooms. A new galvanized iron roof is a sign of being relatively well-off. Of the six communities, Baguio City squatters appear to have better housing. Land is practically rent-free, except in Manila, and the high percentage of home ownership suggests the relative ease with which these residents can put up their own houses. If any house or land rentals are paid, the amounts are more token than real rentals.

Although the physical condition in the slums and squatter areas looks "horrible" and "miserable" to the outsider, they have, in fact, more access to certain amenities and services than the average Filipino household. For example, the National Demographic Survey of 1968 indicated that only 10% of households have piped-in water; whereas, the proportion of households who enjoy it in the six squatter communities is much higher. In Davao City where more than one-half of them rely on rainwater, artesian wells, etc., the water problem is experienced by the whole city and is not peculiar to the squatter areas. In Iloilo City, water is also scarce for everyone. At the national level, only 22.5% of the population have electricity in their homes. In the six cities studied, more than 80% of the squatters in Baguio, Davao, and Manila had electricity; for Cebu, Iligan, and Iloilo, it was more than 40%. Access to medical services, either government or private, was apparent in all six communities. Except for Cebu, toilets of some kind were also available. The national figures show that 78% of the households use wood for cooking fuel. Again, the squatter communities show a higher proportion using kerosene.

In terms of educational attainment, the squatters are not much different from the average Filipino in the urban area. The monthly family income is the same as the lower income level for the country, to which 59% of the families belong. Many of the respondents from the Cebu, Iloilo, and Iligan communities received less than P150 a month. They are, therefore, far from being well-off.

The most striking and most positive aspect of squatter communities is the solidarity and strong sense of community which their residents feel. They have cooperative spirit, mutual assistance activities, and many friends, particularly from the same ethnic and dialect group. They like the place so much that they do not want to move out and could not conceive of any other place to live. On this latter point, Manila squatters were less positive than the other five communities. Although the majority of them except for Baguio said that the government was doing nothing to help them in their communities, most of them have a sense of political power or at least have an access to a government official or politician who could help them. Laquian attributes this community solidarity to the need for organization to confront external threats, particularly because of their "squatter" status. An example of formal organizations precisely for this purpose is the Home Defenders Association of Iligan City which was lobbying for the subdivision and sale of the land squatted upon to *bona fide* tenants. An organization of three communities was also formed when there was an attempt in some of the squatter areas to turn over parts of the community in Cebu to private businessmen. In Davao, an association for the poor was organized to fight the private claims of large landowners. Another organization was called the Davao Riverside Landseekers' Association. Despite the positive feelings for their communities, they are not blind to the realities, for only 12-36% of them said they saw nothing they did not like in their communities. The Baguio and Cebu residents were more favourable about their communities than the four other places. At any rate, the notion of squatter and slum communities as places of

alienation and social disorganization does not seem to be borne out in these studies. Again, college education is viewed as the measure toward a better life.

If people migrate in search of a better life, do they find it? The majority of the respondents indicate that their present life situation is better than the past. They likewise see improved prospects for their children because of better economic opportunities: From 30-61% expect their children to become professionals because of the better opportunities offered by educational facilities. Jobs are more available in the new place. They would prefer to stay in the community if given a choice and the majority are unwilling to return to their place of origin. Of the six communities, however, Manila squatters have the lowest assessment of their life situation, in comparison with the past, in prospects for their children, in availability of jobs, and in their desire to stay in the community. Manila squatters seem to be more amenable to returning home. This less favourable assessment of their life situation in the squatter community could be due to the tougher competition in Manila and the general higher level of living for comparison. Furthermore, pressure to clear the slums and squatters could be a greater threat in Manila than in the other five cities. Despite the lower degree of endorsement for squatter living among the Manila respondents, the assessment is still, in general, a positive one.

True to the general observation that the family is the most important single institution in the Filipino's life, the migrant arrives at the city with the help of his family and relatives. About 30-50% of them hear of land and housing availability from relatives and 23-45% from friends. The patterns of initial movement are as follows: (1) Unmarried migrant moves by himself and stays with relatives in the city. (2) Married migrant, head of the family moves first and stays with relatives in the city. The rest of the family follows later. (3) Married migrant moves with his family as a group. (4) Married migrant lives by himself in the city. The first two patterns seem to be the most common because adjustment in the city is made much easier with the assistance of relatives. In the meantime, they look for jobs and find ways to have some housing in order to bring the rest of the family. Among those who are already employed (whether partially or regularly or sporadically) about 20-43% of the households have one or more other family members gainfully employed.

An inevitable question asked about squatters is: "Where do they come from?" Laquian's study found an intra- as well as an interprovincial rural to urban movement, as in the case of Cebu City where Pasil, the squatter community, is made up of 75% Cebuanos who come from the province itself. Only 7% and 6% are from Leyte and Bohol, respectively. The rest are from Misamis, Samar, Panay, and Luzon. In Iligan, 28.6% of the squatters are natives of Iligan; 25.6% from Leyte; 8.8% from Misamis Oriental; 5.4% from Camiguin; 4.7% from Misamis Occidental; and less than 3% from Luzon. More than 70% of the Iligan squatters have moved to the community within the last 5 years, indicating the recency of the migration. Davao City's population is reported to have 67.1% who speak Cebuano as their mother tongue. Only about 18.5% use a language originally spoken by "natives" of Davao.

In Iloilo City, the squatters tend to come from other areas of Iloilo province and other provinces in Panay Island, although Iloilo and Cebu are points of out-migration from their respective rural areas. Besides the *intra- and interprovincial rural to urban movement* there is also an *intracity transfer of residence* among the squatters because of displacements due to floods, typhoons, and fires that destroy their residences and force them to move to other areas from the central city.

The Hackenbergs describe another emerging pattern that they term "*squatter suburbanization*" which is characterized by an outward movement from the central city by a more middle-class group of squatters made up of skilled industrial and subprofessional workers, who have steady and relatively adequate incomes, and where about one-half of the adults have high school or college education. They found such a community in the Lapu-Lapu Extension where the residents have worked their way out of other neighbourhoods in which they have resided in the city for some time. This is shown by the fact that 71% of the Lapu-Lapu Extension residents have their immediate previous addresses in other places in the city, 61% of them being in the barrios within the vicinity. Ethnic origin of these migrants (birthplace of parents) was 66% Visayan; only 17% came from Davao province. The first influx into the area was in 1964-65, when timber processing and exporting firms were established which brought employees and labourers to the area. Unlike other squatter areas, the residents in this area have high hopes of owning the land for which claims have

been filed and, therefore, more money has been invested in their homes. Seventy-six percent of the homes are owner-occupied. About one-quarter rent houses from other squatters who in the meantime have built larger, more expensive homes. To push their petition for the release of the land to the nucleus of squatter families occupying the area, a Lanang Homeless Association was created in 1964. In the meantime, about 67% of the names on the list of petitioners do not even live in the Lapu-Lapu settlement (162).

By all indications the quest for a piece of land on which to build a house is universal. Income distribution measures should, therefore, include this as one of the major objectives.

A second question always asked about squatters is their source of livelihood. How do they survive or even thrive? Laquian's study observed that squatter communities tend to emerge near piers, open markets, river banks, city dumps, and the central business districts. In these places, the household heads, their wives, and children find unskilled jobs such as labourers, stevedores at the pier, load carriers, transport workers, petty traders, and hawkers. Wives do some buying and selling, take in laundry, while children sell cigarettes, shine shoes, sell newspapers, and do all kinds of odd jobs. In Iligan, they engage in small-scale farming along the fringes of the city and some off-shore fishing. It is significant that 73% of the respondents from the Iloilo City had fathers who were in agriculture and fishing. Hence, for so many of them, migration to the city meant a shift from farming and fishing to unskilled labour and, for others such as those in Iligan City, some little fishing and farming remained. Although the nature of their jobs suggests self-employment, more than 50% of the respondents from Baguio City, Davao City, and Iligan City had regular jobs. The conditions which mitigate the adverse consequences of low income and underemployment, etc. are: no house rent or minimal rent which represents a considerable saving; nearness to place of work; multiple breadwinners and multiple jobs in the family although they may all be underemployed or sporadically employed; relative availability of basic services such as light and water; purchase of food in small quantities several times a day because they are near the market and sari-sari stores that cater to basic food essentials. Despite all these, their greatest expectation from government is land. Some say they want employment opportunities, but they believe that if land were available for their housing they could take care of other needs.

Other studies done by Hollnsteiner (173), Laya (204), Guerrero and Jurado (cited in (1)) have basically the same findings as Laquian's. For example, Hollnsteiner's study of Vitas, Tondo, shows that only 33% of the respondents were born in Vitas, Tondo, and Metropolitan Manila; 45% came from a provincial town or city and 21% came from a provincial barrio. This suggests (1) a within-city movement or a change in city neighbourhood; (2) a "medium leap" from provincial town or city to Manila; and (3) a "big leap" from provincial barrio to Manila. Comparing four types of residential communities such as the squatter area, the city block, the row apartments, and the tenement, the squatters who were the most recent residents had also the highest proportion coming from a provincial town or city. The oldest residents in the area city were those in row apartments and in the city block. There were also more Tagalogs among the longer established residences. Squatters had more of the long distance migrants from Visayas, Northern Luzon, and Bicol. Employment in Vitas was 5% professional-technical; 4% proprietor-manager-administrator; 11% clerical and office workers; 22% salesmen and related workers; 3% farmers, fishermen; 8% transport and communication; 33% craftsmen, factory operators; 8% manual labourers; and 5% domestic. The squatter area reported the highest proportion of the three lower level occupational categories. Residents of row apartments had the highest proportion in the three higher level categories. They also had the highest income levels and more government employees, while squatters had the highest proportion of privately employed. In the four residential communities, 55% were privately employed, 32% self-employed, and 12% government employed. Forty-six percent of the households had one or more children employed; in the Laya study there were 53%, and in the Guerrero-Jurado study in Grace Park, Maypajo, and Balic-Balic, 31.4% of the respondents had children who were employed. The longer and older established residents in the row apartments had 33% reporting three or more of their children employed; followed by 20% of those from the city block. Hollnsteiner points out that "if the continuum from 'affluence' to poverty by actual Vitas low-income norms is examined in terms of household possessions and tenure, the row apartment dwellers stand out as the most affluent in the neighborhood. City block residents generally come next, followed closely by tenement dwellers. Far behind come those living in the squatter area."

As in Laquian's study, 59% of the respondents in Vitas work within the household premises, within Vitas, and within Tondo; thus 41% walk to work. Another 41% take the jeepney; 73% take 30 minutes or less. Looking back at the migrants' initial experiences upon arrival in Manila, 39% acquired their first jobs by applying themselves; 40% were helped by relatives; and 17% by friends. More encouraging is the fact that 42% of them found a job immediately in less than a week and 80% found a steady regular first job. Among those who left their job, 32% did so for a better job and 30% owing to a change in their life's circumstances such as old age, poor health, marriage, etc. Unfavourable job circumstances were mentioned by 24%. In assessing their opportunities in Vitas, 71% indicated more opportunities in Tondo than in their hometown, with the squatters reporting a higher percentage than the three other communities. Seventeen percent said there were fewer opportunities in Tondo; 9% said there were the same as in hometown. In comparing life in Tondo with previous place of residence, 41% said "better" in Tondo; 3% "same"; and 16% "better in previous place." The rest could not say. When asked about desire to return to hometown, 64% said "No;" 14% said "Yes;" and 20% said "it depends." Those in the squatter area had 30% endorsing the conditional response which means that, if sources of livelihood were available or if their children had finished schooling, they would favour returning to their hometown. However, 84% of them did not expect to move out of Vitas in 1971; 56% preferred to stay there; 46% gave Vitas a high rating as a neighbourhood; 76% thought their chances of achieving their aspirations for the family were fair and very good.

Again, their aspirations are to educate their children for good careers and these aspirations are higher among the squatters than the other residents. From this study one can infer that, if a migrant perseveres long enough in the city, he will succeed in moving up the socioeconomic scale. Better opportunities for children's education is perceived as an important way of getting there.

Regardless of how favourable the squatters and slum dwellers view their communities of residence, policymakers still consider it a miserable life and one which should be changed for the better. As Abesamis puts it: "Relocation becomes democracy's enlightened and directed change - a means for providing the relocated families new worlds, new frontiers, new powers of self-fulfillment and fresher resolutions and opportunities for the men, women and children to start rebuilding their lives again" (3).

Given this basic policy of relocation as a way of rebuilding the squatters' lives, several efforts in this direction have been made (198). In Baguio, Executive Order No. 75, July 17, 1967, set aside 100 ha located in five parcels in the city for relocation sites. In these places which are located 1 or 2 km from the city centre, bono fide squatters were given the option to buy the land they were squatting on at liberal terms (downpayment of 10% of purchase price; prices ranging from P3.50 to P12.00 per square metre, while the commercial value was as high as P25; 10 years to pay full cost). The long term housing loans offered to residents of one relocation site were taken advantage of by the middle-income people because the poorer families could not afford the repayment schedules. In Cebu City after the 1962 fire, which rendered 600 families homeless, the government offered to resettle squatters to villages about 5, 8 or 19 km away, but the squatters refused, and instead the government provided 200 houses in a place only 1.5 km north of the pier zone. Others were moved to a site 2 km away. The experience in Davao City, with respect to two relocation sites of 34 and 5 ha each, have not been very encouraging either, despite the fact that residential lots purchased at P1.00 per square metre by the government were being sold at the same price. Because the relocation sites have not been fully developed many of the original receivers of the right to own the lots have sold them and it is estimated that only 20% of the original receivers actually moved to the relocation sites. On the other hand, residential subdivisions financed by the GSIS and the DBP suited the pocket books of middle- and upper-income families but not the squatters.

Another 14 km away offers new prospects. Although transportation costs are high, the selling price is low and, being located in a satellite town, facilities are available. Perhaps this represents a more promising relocation site. But Davao City has the tremendous advantage of having more government land available. In Iligan City, the squatters themselves are pressuring for the subdivision and distribution of the public lands being squatted upon. But the problem does not seem to be a critical one because the growth of the slums and squatters relative to the population is not as serious as it is in other cities. Only 10% of the city's population is estimated to be squatters and slum dwellers. The estimated proportions in the five other cities range from 14 to 33%.

In Manila and environs, programs for squatters have focused on eviction and relocation to Bago Bantay, Novaliches, Sapang Palay, Carmona, and San Pedro Tunasan.

A 1969 Family Survey in Sapang Palay showed that of the original 5975 families relocated since 1960, only 2996 remained in 1968. In 1972, these were estimated to be 3400 families (3). The Carmona Resettlement Area is a 411-ha lot in Carmona, Cavite. As of 1971, the Philippine Assistant on Housing and Rehabilitation Agency (PAHRA) reported that the resettlement area had 4326 families or a total of 26 268 residents. A study conducted by the Philippine Psychological Corporation (259) in 1971 indicated that 62.2% of the employed household heads were working in Greater Manila Area; 30.1% were working in Cavite; a few were working in Laguna, Pampanga, and Bulacan. Of those who were not working in Cavite or Carmona, 39.1% went home only once a week; 29.5% commuted daily. The rest went home every other day, twice a week, or thrice a week. About 74% of them were willing to give up their work outside Carmona and receive at least a minimum wage. Proximity to the family and savings on transportation expenses were the major reasons for wanting to work in Carmona. Of those who were not willing to give up their work outside Carmona, higher pay in the city, more benefits, and privileges were given as the major reasons. As in the squatter areas, 48% of the households have more than one member employed. In order to help provide employment to the resettled families, an industrial centre was set up to house income-generating establishments that would create job opportunities for the residents.

A survey conducted in 1972 (294) in San Gabriel, Carmona, found that 86% of the houses sampled were family occupied; 12% were watcher occupied; 9% were abandoned; and 4% were skeleton houses. Only 32% of the respondents were full-time residents; 38% came during the weekends; 2% went home twice a month; 1% once a month; 9% seldom went home; and 18% came once in 4 or 5 months. Despite the partial occupancy of the houses, 81% of the respondents intended to stay in the area permanently; 1% intended to move out; and 18% were reported to have current address unknown. The major reason for the relatively scarce presence of the residents in Carmona is their employment outside the area and mostly in Greater Manila. The industrial centre has provided employment for only 10% of the household head residents interviewed. Therefore, the advantages offered by the slum and squatter areas in Greater Manila, in terms of proximity to place of work, are not present in Carmona. Since more families have been relocated, a commuter train has been recently provided. However, relocation has yet to prove itself as a solution to the squatter and slum problem.

Experiences which accompanied migration to frontier areas

Quite a contrast to the high density problem of the city is the relatively sparse population of frontier areas such as Palawan even up to the present and Davao during its years of "internal colonization." Resettlement or land settlement, which Fernandez defines as "large scale internal transfer of population to vacant and frontier lands under the sponsorship and assistance of government or private agencies" (135), is viewed positively and is regarded as a desirable process that should be promoted. On the other hand, cityward movements, particularly to the Greater Manila areas and the resulting "ugly" concentration of population in slums and squatter communities, are viewed very negatively and the policy sentiment is one of removal (called relocation) and prevention (keeping them in the countryside). For both types of migrants, the expectation and promise is one of a new life better than the old. As we have seen in the previous discussion, squatters and slum dwellers have very positive assessments of their present and their future in the city. It would, therefore, be of interest to see what happens to those who make the "positive" move toward sparsely populated areas. Do they also find their "pot of gold?"

A case study of the NARRA settlement in Central Palawan, which was done by Fernandez, provides us some insights on problems and prospects of land settlement. NARRA has 23 300 ha divided into five agricultural sectors, which are in turn subdivided into 6-ha farm lots. The original plan was to administer the project for 20 years, at the end of which the settlers were expected to become economically self-sufficient. Since 1954, about 2666 families have been admitted. Four types of settlers have been identified:

(1) *Pioneer settlers* - those who settled and resided in the area before the opening of the NARRA project (17).

(2) *Local settlers* - those who came to NARRA on their own and applied at the local office of the Agency for land allocation (800).

(3) *Moved-in settlers* - those who applied at the National Agency and came to NARRA with full Government assistance (approximately 1649).

(4) *Self-propelled settlers* - those who applied at the National Agency, paid their transportation to NARRA, and upon arrival were accorded partial subsidy and assistance (about 200).

The moved-in settlers had the barest provisions and resources and had to be provided housing, transportation, subsistence, clothes, seeds, farm implements, medical services, etc. The Agency's blueprint estimated that the whole process of resettlement from recruiting and screening of settlers, transfer to Palawan, cushioning and stabilizing the settlers, and land ownership would take 10 years. The Agency estimated that about 60% of all farmlands allocated to settlers was grass-infested wasteland that could be reclaimed only by proper irrigation methods; 20% was in forests; and only 20% could be considered productive. Less than one-half of the productive land was irrigated. Because most of the settlers were rice-oriented, irrigation was a constraint. In August 1967, about 815 settlers out of 2666 were reported to have abandoned their farms (meaning noncultivation of farms for 2 cropping seasons). Five hundred of those reported cases were found to be still living in the settlement, but temporarily engaged in doing something other than the cultivation of their farms. They may have borrowed lands from other settlers; have done nonagricultural work in town; or have become share tenants in already productive agricultural lands. As of 1971, out of 2666 recipients of land, the Agency had awarded titles to only 117, of which 13 have already lost ownership.

Applying the following indicators, Fernandez analyzed the ingredients of success among the NARRA settlers: (1) extent of land development; (2) general style of living; (3) ownership of agricultural production equipment; (4) ability to send children to college; and (5) participation in community affairs. Based on these criteria, successful settlers were identified as "a well-demarcated social group in matters of formal education, exposure to media, travel, managerial skills, and employment experience." As a group their average formal education amounts to three years in college. Two have attended graduate schools and another currently attends law school. In contrast, the average settler has spent some time in the city, either for studies or employment, holding a job which calls for managerial skill. Five of them take pride in having been trained by American employers, and four others in having been assigned overseas (Guam and Okinawa). The key to their success, they claim, is managerial know-how rather than technical skills. Fernandez says: "The successful settlers in NARRA are farmers, but only nominally. They are more aptly called *entrepreneurs*. Social talent and business sense are the major elements of their code."

With respect to the majority of the settlers, two-thirds of them who are not in the farms are most likely in the town or nearby town because the growth of NARRA is increasingly being focused on its urban elements - such as the bureaucratic sector, the market, and nonagricultural labour. By way of policy alternatives, Fernandez suggests that the settlers be recruited from the bottom of the economic ladder and for which there is not much choice other than resettlement or from those who are able and can afford to take the risks in a frontier area. For the former, large doses of assistance from government are needed and for the latter, little or moderate assistance. In other words, the settlers should not be treated equally by the Agency because they differ in the initial resources and characteristics at the time of recruitment. To this day, Palawan remains the most sparsely populated province in the country.

For a more "successful" land settlement program in terms of ability to bring in settlers who stayed, took over the land, and farmed, the story of migration to the Digos-Padada Valley of Davao is illustrative (301). Simkins and Wernstedt said that from 1948 to 1965, about 180 000 persons (migrants and their dependents) had come into the Digos-Padada Valley and that there was almost no land in the valley proper that was not under private ownership and in cultivation except for the poor drainage areas. The large holdings in lowland rice irrigated areas were owned by the original settlers. With the increasing scarcity of public land for homestead, some of the more recent migrants had to work as tenants to the more established settlers. Unlike the migration to Palawan, the settlers in the Digos-Padada Valley came mostly on their own. Their trips were mostly self-financed from sale of land, livestock or crops, personal savings, family contributions, borrowing, and payment of passage by prospective employers. Some

of the settlers were brought as sacadas to work on the big coconut and abaca plantations and their earnings from these jobs helped them get started. Despite the closing of the farmland frontier and the relatively high population density in the area, 58 out of 136 barrios inhabited by 44 000 people had no regular public transport. Only 10% of the population lived in barrios or poblaciones near the provincial road. The coastal barrios depended on boats for their transport. This lack of an extensive road network was perceived as a constraint on marketing of surplus production and on rational economic development.

Simkin's and Wernstedt's analysis of the migration process shows the following patterns: (1) There was a concentration of migrants from Cebu and the highest contributors to the first 10% of the migrants came from the municipalities of Argao and Sibonga. The origins of the first 10% predicted the origin of successive migrations. (2) The selection of specific destinations by the migrants was very much influenced by availability to markets by roads, presence of water, and location of friends and relatives. (3) The migrants made an average of two stops over an average of 6 years before getting to Digos. The median age group at time of first move was 20-24, but the median age of migrants on arrival at Digos was 25-29. (4) As in the studies of slum and squatter communities previously cited, relatives and friends played a very significant role in the migration process. More specifically, they encouraged migration of those who were still in their provinces of origin, and allowed relatives and friends to stay with them upon arrival in the valley. Home visits by the migrants have also been instrumental in attracting them to the new place. Relatives and friends have influenced the destination of new migrants. A very clear indication of this is the fact that almost one-half of the migrants' brothers and sisters lived in the same valley and about 40% in the same municipality. These arrangements certainly contributed to smoother social, economic, and psychological adjustments for the new arrivals. (5) Unlike migrants to the city slums and squatter areas, migrants to the Digos-Padada Valley had a higher proportion who were married. They tended to have higher median education (Grade V) than the population in the province of origin (Grade III) and higher than the national figures (Grade IV) would indicate. About two-thirds of them from Cebu and Bohol were born in barrios rather than in poblaciones. On the whole, about 59% came from barrios and only 41% from poblaciones. This suggests a definite rural to rural movement. (6) If the reason for migration was to find land to farm, the migrants have succeeded. The first indication of this is the increase in the proportion of migrants engaged in agricultural employment from 57.5% before migration to 77.5% after migration. There is a definite shift away from blue-collar and white-collar jobs to agriculture. The second indication is the increase in the size of land being farmed per family. Prior to migration, the median size was 2-2.9 ha. After migration this increased to 3-3.9 ha. What is even more significant is the fact that 40% of the area farmed after migration is 4 ha and above. Prior to migration only 14.5% had this farm size. Using these two indicators, one can say that there has been a definite improvement in farming for the migrants. (7) When the migrants were asked their reasons for moving to Digos, about three-quarters of them mentioned better economic opportunities, but hardly anyone pointed to "economic distress" factors in their place of origin. In other words it is a definite conscious "pull" rather than "push" which induces them to move. (8) Simkins and Wernstedt introduced the *threshold concept* in migration which is very much a "pull" factor. They argue that the reluctance to migrate is general even in the face of rather severe economic or social distress. But, once someone has moved and sufficient numbers of them have also moved, information and aid links are established which make it easier for friends and relatives to migrate. Once this threshold has been reached in certain places, a tradition of migration is established and such places tend to be noted for their out-migration. The authors offer this as an additional explanation for migration behaviour.

Some attempts to "influence" population distribution

Certain programs and policies, whether deliberate or not, wittingly or unwittingly influence population distribution, some of them more successfully than others. Since urban explosion with its slums and squatter areas is regarded implicitly or explicitly as "undesirable," there has been more attention or at least more lip service paid to "stemming," moderating, or deflecting rural to urban movement. These activities whether planned or not may be classified into five general categories (275): (1) Those that encourage people to move to other rural areas; (2) those that discourage people from moving to large urban areas; (3) those that encourage people to stay where they are;

(4) those that encourage people to move to smaller urban areas; and (5) those that cope with problems arising from internal migration.

The first category includes two types of not very effective attempts: (a) *Land settlement schemes* to attract people to Mindanao and Palawan which have not been as successful as the "spontaneous migration" to places such as Davao, etc. described earlier; (b) *relocation of urban squatters and slum dwellers* to rural areas outside the urban centre which has not been very successful either.

On the negative approach, or measures to discourage movement to large urban centres, there was an abortive move to limit free public education only to *bona fide* residents of Manila. Decentralization of industrial establishments and educational institutions, zoning to restrict use of available land, and fencing off or fencing out areas that are potential habitats for squatters are either being contemplated or implemented in one way or another, but "effective control" remains as elusive as ever.

Land reform, agricultural development, rural health and nutrition programs, road buildings, rural electrification, barrio high schools, community development, and local government projects are all part of the overall strategy to improve living conditions in the rural areas which hopefully would encourage rural folks to stay where they are. The impact of these programs on "holding power" of the rural areas remains to be seen. Meanwhile, we continue to be painfully aware of the wide and perhaps everwidening rural-urban disparities in terms of the "good things in life." Farmers do not wish farming for their children and, the more educated they are, the greater is their propensity to migrate.

As a further step toward discouraging rural-urban migration, a program harnessing elementary and secondary schools through the integration in the curriculum of materials that will develop a favourable attitude toward living in the rural areas is proposed. Among the desirable aspects of rural life which, according to the Department of Education and Culture, would be given emphasis in the curriculum are: (a) less air, water, and noise pollution in the barrios; (b) more economical living; (c) more neighbourliness and "bayanihan" spirit in the rural areas; (d) no energy crisis in the barrios; (e) a feeling of independence and freedom among farmers; they are their own bosses; and (f) the farmer may now make more money than his city counterparts where the latter rents a home and a big part of his income is eaten up by food, transportation, etc. (39, p. 11).

Because of obvious naivete in the identification of these "virtues of rural living," a curricular focus on them is not likely to keep rural folks where they are. Where there is no light, no piped-in water, no roads, no doctor, and where people suffer from tuberculosis, malnutrition, malaria, schistosomiasis, hookworm, scabies, etc., one might even opt for the pollution that accompanies modernization rather than suffer from poverty and underdevelopment. Farmers spend more than 60% of their income for food and, although they are their own bosses, they are subject to the whims of nature.

Contrary to the romantic beliefs of advocates of rural living, even in the developed countries, "people tend to live longer in polluted cities rather than in the countryside with its sun and fresh air. It is the access to medical facilities which makes all the difference" (267). In the Philippines, mortality measures are not likely to foster favourable attitudes toward rural living (Table 161). People live longest in Metro Manila (63.0 years), next in other urban areas (61.3 years), and shortest in rural areas (58.5 years). Crude death rates, on the other hand, are highest in the rural sector (11.1); next in the other urban (9.4); and lowest in Metro Manila (6.6).

Given these and other comparative rural-urban statistics, which all favour the latter, it is difficult to "sell" rural living. One wonders at this point what type and level of development in the rural areas would act as a positive holding power. As mentioned earlier, it is the "pull" of the urban sector rather than the "push" of the village which induces rural-urban movement. A "counter-magnet" strategy that proposes to encourage other smaller urban centres is reflected in the regional approach to development. Regional offices of national government departments and even regional universities are part of this scheme to develop "growth centres." This strategy shows more promise for it acknowledges the irreversibility of the urbanization process and is a real step toward reducing interregional balances.

Urban renewal and other attempts to improve institutional, infrastructure, and delivery systems as ways of coping with problems of internal migration probably have an even more "magnetic" effect. Every successful housing, beautification, transportation,

employment, health, and recreation program serves as a beacon to those who live in deprived rural areas. To the rural landless poor, one can adopt the slogan: "If you want to get ahead in life, be a squatter in Metro Manila so that you can relocate, have a house and lot, a job, and a commuter train." As long as the vigour of urban renewal is not matched by equivalent inputs in rural development, the "urban pull" will remain more potent than the "rural hold."

Policy implications of internal migration trends

Certain policy issues emerge from the analysis of internal migration trends and their consequences:

(1) Should the policy be one of bringing people to where economic opportunities lie or should the opportunities be brought to where people are? Because of the infrastructure of facilities, services, employment, and educational opportunities, the move toward the urbanizing areas has been more predominant. Studies of cityward movement have concentrated on slums and squatter areas and might have, therefore, contributed to a "biased" picture of migration results. The salient policy wish is to remove or relocate but relocation often means job dislocation; hence the aftermath is far from being satisfactory. So far, there are no studies available on the other side of the migration picture - that of the white-collar, college graduate, professional, managerial, clerical, business, commercial, and skilled worker classes who migrate to the city at the upper, lower-middle, or at the upper level of urban society. Subdivisions, housing projects, apartment buildings within the city, in the suburbs or its environs are clearly indicative of this development. They also seem to represent an upwardly mobile group if one were to judge from physical living conditions. Where they came from geographically, socially, and economically, and what occupational and educational routes they have taken in order to arrive at their present place and status should tell us how to find the "pot of gold" at the end of the rainbow. But so far we can only go by ocular observation because no studies are available. An important point which should be recognized is that urbanization is an inevitable and an irreversible process and, therefore, it seems wiser to prepare and plan for it rather than fight it. The burgeoning of slums and squatter areas and the emergence of housing projects and subdivisions for the middle and upper class are twin results of the same process. Why do we welcome and encourage the latter and push aside the former? Where is the equity in this policy? Relocation means taking them farther away from their places of work unless employment and services can be provided adequately in the relocation sites. So far, this has not materialized to such a degree as to substitute for opportunities available in the city, even in the slums. What do we do about this?

(2) If we have agrarian reform, why could we not have urban land reform or residential land reform? As mentioned elsewhere, less than one-half of households own their homelots. Although we have reason to worry about urban squatters, we also have the phenomenon of rural squatters. With the transfer of ownership from the landlord to the tenant, these tenants are assured a plot of land on which to put up their house. The landless hired farm labour, the rural nonfarm poor, and the urban poor are not as fortunate. Would the new landowning bourgeoisie be inclined to allow landless farm labour and rural nonfarm people to use a part of their land for a home site? What is their chance of ever having such a plot of land? It seems inconsistent and even unfair that a man who owns two hectares of rice or corn land, but is not cultivating it himself, has been asked to give it up in favour of his tenant, while the urban or residential landowner in town is allowed to hold all his real estate whether or not he is using it himself or whether or not he is using it at all? This state of affairs is nowhere more dramatically illustrated than in the pieces of real estate in Makati and Davao. One wonders how much the Makati real estate development has contributed to the country's economic growth. But there is no question that the largest gaps in income distribution have been given full expression in Makati as the hub of the upper-upper class whose characteristics are exclusiveness and a jet-set lifestyle more akin to the affluent West than to the rest of the Philippines. The regressive effects brought about by the salience of this lifestyle cannot be ignored. In terms of equity among the upper and landed classes, those whose holdings are located in the urban areas have not been touched at all by land reform. If there is any sacrifice involved, there should be equality of sacrifice between the rural and the urban landowner. If there are any benefits received, there should also be some equality between the farmer, the urban poor, and the rural nonfarm low-income groups. How concentrated is urban or residential land ownership?

The price of these pieces of real estate goes up whether or not the owner does anything with them. A redistribution of this land could go a long way to complement agrarian reform. A ceiling on residential land ownership is also another possibility. Another wild suggestion would be to require every subdivision owner to set aside a certain portion of his land for sale at a much lower price than the rest of the property (a kind of socialized pricing for residential land).

(3) The third issue relates to whether or not land is still available for cultivation. If it is available, should resettlement to these places be promoted or should we allocate resources for making the cultivated or currently available cultivable land more productive via irrigation? The Palawan and Digos-Padada experience shows that the issue is not one of resettlement or irrigation but rather resettlement plus irrigation, which is a much more expensive proposition. Therefore, the question of who owns the still uncultivated land is also very pertinent if sizeable investments are going to be made toward their cultivation. Given growth, employment, and income distribution objectives, which path should be taken - intensification or "extensification?"

SUMMARY AND CONCLUSIONS

Even in a society with a very unequal income distribution like the Philippines, there is a continuing search for the "pot of gold" at the end of the rainbow. People move from one part of the country to another in search of "greener pastures." These movements do not occur at random but along certain directions, thus resulting in population maldistributions, with the metropolis attracting the greatest concentration not only of people but also of development resources. We, therefore, have a dual society composed of Metropolitan Manila and the rest of the country. This chapter describes the following aspects of internal migration trends and raises some policy implications: patterns of internal migration; characteristics of the migrants; experiences which accompanied rural-urban migration and migration to frontier areas; attempts to influence population distribution; and some policy implications.

Patterns of internal migration

From the analysis of interregional and interprovincial population trends, four groups of provinces emerge: Group I - Low density with net in-migration; Group II - Low density with net out-migration; Group III - High density with net in-migration; and Group IV - High density with net out-migration.

The in-migration regions are of two kinds: Northern and Southern Mindanao which are more agricultural and Central and Southern Luzon which are the most nonagricultural among the regions except for Manila. As expected, low density areas also have low index of total development as in the case of Group I provinces, but they have net in-migration which seems to suggest that the prospect of farmland is a more potent pull factor. For the Group II provinces, the net out-migration may be explained by a double negative factor of low index of development and little or no opportunity for farmland. The Group III provinces have high density, high index of development, closed farmland except for Mindoro, but also a high influx of migrants. These areas make up the exploding urban centre and the dominant migration pattern is toward these urbanizing and suburbanizing areas surrounding Metropolitan Manila. Group IV provinces have medium index of total development, high density, high net out-migration, and closing opportunities for farmland.

On the whole, it can be said that interregional and rural-urban migrations were determined more by the socioeconomic conditions in the receiving areas than by those of the sending regions. There are short-distance and long-distance moves and circommuters from Central Luzon to Manila. Metro-Manila seems to have a "universal" appeal to migrants from all parts of the country; whereas, Southern Mindanao seems to be preferred by Central Visayans.

Looking at migration streams between and within rural and urban areas, the following changes are evident: (1) decline of rural-rural migrants; (2) doubling of urban-urban and urban-Manila migrants; (3) persistence of rural-urban movements; and (4) slight increase in the urban-rural migrants particularly the Manila-rural ones.

Characteristics of migrants

Migration propensities differ by age, sex, education, income levels, and occupation. Females are more migratory than males and are more prone to move into the metropolitan region. Rural out-migrants have higher education and incomes. In general, rural areas are losing their better-off people to the urban sector, and those who return to the village from the city have lower education and income than those who moved out. Urban-Manila migrants tend to have more professionals and have higher incomes than rural-Manila movers, but females, both rural and urban, have much lower incomes than males who go to Manila. Many rural-Manila female migrants are in domestic service. Although rural-urban migrants are better-off than rural nonmigrants, urban-Manila migrants are more highly selected in terms of education, occupation, and income. This suggests that the less-qualified rural-urban migrants will have a lesser chance of surviving in Manila.

Slums and squatters - the "ugly" side of rural-urban migration

In discussions of rural-urban migration, its advantages are never glorified, only its "illnesses." Although slums and squatter homes are regarded as "blights" of the city, they have more access to certain amenities and services than the average Filipino household. In terms of education and income, they are not much different from other low-income groups. The most striking and most positive aspect of squatter communities is their strong sense of community and solidarity. To the majority of them, their life in the city is better than where they came from. They likewise see improved prospects for their children because of better economic and educational opportunities. Most of them are unwilling to return to their place of origin. They make their way to the city and find a life there with the assistance of family and relatives.

How do squatters and slum dwellers survive? A number of conditions enable them to do so: no house rents or minimal rents; nearness to place of work; multiple breadwinners and multiple jobs; relative availability of basic services such as light and water; purchase of food in small quantities several times a day because they are near the market and sari-sari stores. From a number of studies, one can infer that if a migrant perseveres long enough in the city even as a squatter or a slum dweller, he succeeds in moving up the socioeconomic scale. Better opportunities for children's education is perceived as an important way of getting there.

Because of the above-mentioned advantages of living within the city, relocation schemes have not been as successful as anticipated.

Experiences which accompanied migration to frontier areas

Palawan, as the most sparsely populated province in the country, has been the object of land settlement programs which have only partly succeeded in making farmers out of settlers. The successful settlers, in terms of indicators such as extent of land development, general lifestyle, ownership of production equipment, ability to send children to college, and participation in community affairs, are distinguished by managerial know-how and entrepreneurship. The suggestion was to treat different types of settlers differently providing greater assistance to those better able to take risks on their own in the frontier area.

For a more successful land settlement program in terms of ability to bring in settlers who stayed, took over the land, and farmed, the story of migration to the Digos-Padada Valley of Davao is illustrative. Unlike Palawan, the settlers to this valley were mostly self-financed from sale of land, livestock or crop, personal savings, family contributions, borrowing, and payment of passage by prospective employers. The selection of specific destinations by the migrants was very much influenced by availability of roads, water, and location of friends and relatives. The origins of the first 10% predicted the origin of successive migrations. If the reason for migrating was to find land to farm, they have succeeded. There was a definite shift away from blue-collar and white-collar jobs from place of origin to agriculture jobs in Davao. Again, it was the "pull" factors in the Valley and not the economic distress in places of origin which induced them to move. The *threshold* concept in migration argues that once someone has moved and sufficient numbers have moved, information and aid links are established which make it easier for friends and relatives to migrate. Once this threshold has been reached in certain places, a tradition of migration is established and such places tend to be noted for their out-migration.

Some attempts to "influence" population distribution

To stem the tide of rural-urban migration, a number of activities, either planned or unplanned, may be identified and categorized as: (1) those that encourage people to move to other rural areas such as land settlement schemes and relocation of squatters to rural areas; (2) those that discourage people from moving to large urban areas such as zoning to restrict use of land, decentralization of industry, etc.; (3) those that encourage people to stay where they are such as land reform, rural health, rural electrification, road building, etc.; (4) those that encourage people to move to smaller urban areas as is evident in the regional approach to development which envisages growth centres in different regions as a *counter-magnet* strategy; (5) those that cope with problems arising from internal migration such as urban renewal and other attempts to improve services to urban centres.

Some policy implications

The analysis of internal migration trends raises a number of policy issues:

(1) Should the policy be one of bringing people to where economic opportunities are or should the opportunities be brought to where people are? As long as the rural areas remain glaringly disadvantaged in terms of the "good things in life," rural-urban migration will be seen as the "best" way to get ahead in life. The burgeoning of slums and squatter areas and the emergence of exclusive housing areas for the upper class are twin results of the same process. Why do we welcome the latter and want to demolish the former?

(2) If we have agrarian reform, why could we not have urban land reform or residential land reform? Although we have urban squatters, we have even more rural squatters. There is no "equality of sacrifice" between the rice and corn landowner and the urban real estate owner.

(3) The third issue relates to whether or not land is still available for cultivation; who owns this land; and what strategy would be more economic and more equitable - intensification or extensification?

CHAPTER XI

TIME AND DEVELOPMENT

In considering a change, growth and/or development, an evitable element is involved for it is impossible to dwell on these phenomena independently of the *time* perspective. Its pervasive but elusive character has made the analysis of its role as a factor in development a very difficult one. For *time* unlike other ingredients in the change process changes even as one attempts to capture it. There is nothing static about time. As Tannenbaum and Stillman put it: "Time is curious. It has no beginning and it has no end. You cannot see, hear or touch time. It is impossible to pick up a piece of time and measure it against another piece. And yet time is so important in everyday life that you would find it difficult to imagine a world without some way of measuring time" (320, p. 7).

We also have the common expression "the time of your life." Adler describes it as living in an ocean of space but living in a river of time for time flows past us in a steady stream although space surrounds us on all sides. The *present* or *now* is a very slippery thing which one cannot hold on to because, as soon as something happens, it becomes part of the past and, forever after, one may talk about it only as something that has happened. The future inevitably becomes the present, the present becomes the past, and the past moves on behind us never to return. Time has another unique feature. It is a one-way street which flows only in one direction, from the past, through the present, into the future (4, p. 9-12). One cannot do things over; he can only do it again. But then things are never completely the same at different points in time.

This chapter describes the different aspects of the *time dimension* as they manifest themselves in development literature and in actual development experience: Change as a function of time; time and development strategy; time as a setting - a shaper of events; time and goal attainment; time as a resource; time as timing; time as social and cultural meaning; time in technology; and time indices of modernization.

Change as a function of time

Heirich in his article on "The Use of Time in the Study of Social Change" points out the place of time in evolutionary theories. According to him the evolutionists' answer to the question of what happened to create such a variety of social forms in the world is to arrange societies in a continuum representing increasing complexity of social organizations. As a causal link accounting for change from one level of complexity to another, they point to time (167). Leslie White defines evolution as a "temporal sequence of forms, one form grows out of another; culture advances from one stage to another. In this process, time is as integral a factor as change of form (341, p. 29-30).

Theories of growth and of development also imply movement of a society from one stage or one level to another over a period of time. In the sequence and evolvement of structures from one form to another, certain forms come before others and it is only on a time dimension that changes in social structure become evident. We must bear in mind, however, that the position of a developing country in this sequence is not determined by its "chronological or historical age" but by its "development age" relative to the developed societies of the world. Whether a nation is an early- or a late-comer is not a function of how old its civilization is but how quickly it has emerged in terms of the models of the First and Second Worlds, so that we have the *underdeveloped*, the *less developed or developing* (the so-called Third World), and the *developed* or even *overdeveloped* nations. Galbraith's three models of developing nations is an illustration of this. In his Model I or the Sub-Sahara African Model, most of the countries have recently emerged from colonialism and have had only a few years preparation for the tasks of economic development. The principal barrier to development is the *absence of sufficient numbers of trained technicians, managers, and administrators*. Model II, or

what Galbraith calls the Latin American model, has a technical managerial base which is quite wide, but the more evident barrier is the *social structure* that provides no incentives for economic development. A sizable elite depends for its economic and social position on landownership, government employment, or position in the armed services, income from which depends on distribution of power rather than on economic services rendered. Landlords have a labour force that is devoid of incentive and, therefore, cannot do much to increase production. In the Model III countries with South Asia as the prototype, the technical-managerial base is very wide, but too many people struggle to make a living from too few resources; hence *population pressure* is the bottleneck. After identifying the critical barriers for each model, Galbraith concludes with the best hope that "people of the developing countries in comparing their position in the given year with that of the year before will have a sense of improvement (154). The developing countries, however, do not always use their own previous position as a basis of comparison. They sometimes use a developed country as their point of reference and, therefore, a sense of frustration results.

Galbraith's models can be applied to the different regions of the Philippines that are unequally and unevenly developed. For some places, the urgent need is trained manpower; in certain areas, land reform; still others, infrastructure; and in particular regions, peace and order. A uniform development policy would only aggravate rather than alleviate the existing inequalities.

Mosher's essentials and accelerators in *Getting Agriculture Moving* (237) is another illustration of what steps are considered indispensable for agricultural development and presumably would have a higher priority. The economists have a concept of the dominant input at each stage and development planning and programming is viewed as a sequential strategy. Production credit, for example, may be regarded as an input that could be introduced later after prospects for increased yields have been demonstrated so that farmers may have higher probability of loan repayment. The priority of infrastructure is often cited in Taiwan's development strategy where "a major share of the basic investment in irrigation was already completed before the beginning of the biological resolution that led to the yield take-offs. This irrigation development leading to effective water control was a prerequisite to the effective diffusion of the new higher-yielding, labor-intensive, fertilizer-consuming rice varieties. Institutional innovations such as extension work, farmers' associations, irrigation associations and land reform followed and complemented *both* the investment in water control and the technological changes" (174, p. 37).

To translate concepts of priority and critical development needs into action, developing countries embark on 5-year or 4-year development programs, usually with emphasis on the factors judged most critical. Built into this approach is the idea that it takes time to accomplish certain things and the concept of priority implies that some things are more important than others at a certain point in time. Choice of development strategy would be easy if the political and development imperatives of a country coincided. Depending upon who is making the assessment and the judgment in the allocation of limited resources, there are *priorities* and *priorities*. And there are also those who argue on the simultaneity of priorities. In other words, everything is a priority.

Between the articulate and urgent demands of the urban sector and the massive but relatively passive and less centrally visible needs of rural communities, it often seems expedient to satisfy the former and postpone the latter. In the meantime, the search for a "better life" if not for now, for the future; if not for themselves, for their children; and the rural-urban trek continues unabated. Two decades ago, rural development looked relatively simple. Our late President Ramon Magsaysay stated in his famous pronouncement in 1956 that "the little man is entitled to a little more food in his stomach; a little more clothes on his back; and a little more roof over his head." Nowadays, the development picture has become much more complex. What we want or at least what we claim we want for the villages has expanded to include literacy; a full-time job that uses labour-intensive productive intermediate technology (with no disguised unemployment or underemployment); a God-given acre of land he can call his own; an infrastructure of facilities and services such as electricity, roads, irrigation, communication, low-cost credit, health and medical service; and not only increased production and higher income but more equitably distributed income. We envisage high quality, development-relevant schooling for his children; decent housing; long, healthy adequately-nourished life with only two instead of 6.8 children living in a pollution-free,

ecologically-balanced environment. In addition, we prefer that he remain in the village in order not to mess up our cities. Finally, we want him and his villagemates to get organized to solve their own problems in the true spirit of self-reliance. Our definition of rural development imperatives and the indicators of quality of life have indeed become much more complex and much less tractable. We have gone full circle in our concept of development strategy over time. In the early 1950's, we thought community development should take a wholistic approach and so we had fourfold or manifold programs and multipurpose workers. But then at some point, there was disillusionment with all this; hence, we went to the other extreme of embarking on single commodity production and promotional programs such as rice, corn, contraceptives, etc. Now we have rediscovered the interrelatedness of factors and are all agog about integrated rural development. As Ruttan explains: "this concern with integrated rural development in the developing world represents, in part, a reaction against the distortions produced by the production-oriented (Green Revolution) rural development efforts of the 1960's, which were in turn, a reaction against the economic failures of rural development programs of an earlier vintage.... They had been based on the assumption that the mobilization and development of community resources - human and physical - motivated by the multipurpose village worker and supplemented by credit and limited grants of materials would lead to the modernization of rural society.... The community development programs of the 1950's were least successful in efforts designed to expand the economic base needed to support rural development - efforts to introduce changes in farming practices that were capable of increasing agricultural productivity, or to generate employment and income through expansion of village industries" (291).

In Asia, for example, Japan, Taiwan, and Singapore would be ranked high in this sequence because of the extent to which they have acquired the material indicators of development within a relatively short time span; whereas, India in spite of its very ancient civilization is much less developed than Japan and Taiwan and would have a lower position in the sequence.

Partly as a consequence of a rapidly spreading Western modern lifestyle that relies heavily on oil as an energy source, the power structure in the world has shifted from the First and Second Worlds to what might be called the Fourth World of oil-exporting countries (OPEC). For the moment they hold the key to the continuing enjoyment or the curtailment of an oil-expensive way of life. How long this power position will last depends upon how long their oil supply holds or how long it takes for other countries to find alternative sources of energy. All these shifts in power relations have to be viewed against a time perspective.

Time and development strategy

If we accept the notion of stages or levels of development, then it is possible to postulate that different strategies are called for in different stages. Given limited resources, a system of priorities and a sequence of activities are implied. The content of this priority sequence depends upon what are considered the critical factors in each stage or what the principal barriers are to development. Unlike Ruttan, we are not prepared to write off the community development of the 1950's as a failure. The following hindsights force us to consider this verdict in the light of happenings in the past 20 years:

In the Philippines the community development program was the first significant, systematic, and national effort to reach and deliver social services to the barrio, while at the same time trying to enlist their participation. It was the first time that the barrio had ever been the main focus of national development. It was the first major attempt to mobilize the barrio to link it with the rest of the nation as a development strategy, rather than as a purely vote-getting gimmick. Perhaps a sense of nationhood is a prerequisite to meaningful economic development.

The organization and development of the barrio council (which was the heart of the CD program) as an institutionalized channel for vertical and horizontal communication has doubtless contributed to growing political awareness, if not political *savoir faire* of village leaders. This is not without repercussions in terms of rural people's increasing ability to articulate and to make demands on the system to a point where they can no longer be ignored.

The CD program was the first major exposure of our national leadership, our professionals, and politicians to the problems of the rural sector outside of the

periodic election campaigns. It was the first national program, besides the public elementary school system, that recruited college graduates (professionals) to serve the rural areas. It has helped define service to the barrios as a respectable job for professionals.

At the time (the 1950's), there was little or no productive agricultural technology, around which rural development programs could be organized. It is perhaps this lack that has led to the development of research centres designed precisely to produce such technology. At the moment, a frequent complaint is the weakness of the organizational and institutional framework needed to support the introduction and continuing productivity of these technologies. Hence, we seem to be back to the old problem that stimulated the CD program earlier.

The large crew of personnel who have been trained and fielded under the CD program are at present manning and leading many national development programs such as cooperatives' development, agrarian reform, nutrition, population, manpower and youth training, regional, provincial, and municipal development planning, etc. Without their experience and previous exposure to rural problems, these programs would have had to start from zero.

In general, the CD program helped establish the primacy of the village and the villager as both beneficiary and active participant in national development. Policies and action have not always been consistent with this recognized primacy, but nevertheless every development program attempts to devise a strategy for reaching the village although admittedly implemented with uneven degrees of commitment and success. Even with the most cynical, it has become fashionable to be positively identified with the goals of rural development. The CD movement has laid the foundation for village-based or, at least, village-oriented programs. Time, therefore, has its own way of changing the perspective against which we judge the value of development decisions made two decades ago.

Time as a setting - a shaper of events

Daniel Bell of the Commission on the Year 2,000 cites St. Augustine's concept of Time as a threefold present: "the present as we experience it, the past as a present memory, and the future as a present expectation. Using that criterion Bell says that the world of the Year 2,000 has already arrived for in the decisions made now, in the way we design our environment and thus sketch the lines of constraints, the future is committed" (29).

The developing countries of today have to live with a number of unalterable facts of history which rightly or wrongly are being blamed for their present predicament. The past, in many ways, shapes the present and the future and, in some countries where the pains of growing nationalism are very strong, there is an effort to repudiate the past, particularly their ties with former colonial powers. Ironically, sometimes their situation is analogous to that of a teenager who wants to declare independence from his parents but, come week-end, he has to make peace if only to get his next week's allowance. This immediately calls to mind the so-called generation gap which is often identified as the gap between grandparents, parents, and children. In the context of present-day developments, this generation gap is not just a problem of family relations. It highlights the changing role and importance of a particular age group and it reflects differences in the "time-worlds" that characterize each generation. It is a reflection of the changing times. An illustration of this phenomenon can be found in the Cruz' study which shows increasing secularization in religious beliefs, values, and behaviour from parents to children and, among children, further changes take place as they go through a college education. From the data presented in the study (Table 162), the following trends are evident when the beliefs, attitudes, and behaviour of parents are compared with those of their children who are freshmen and senior college students:

The proportion of parents who believe in God declines from 98% for parents, 94% for freshmen to 86% for seniors. Although these figures do not say that "God is dead," 49% of seniors compared with 68% of freshmen have doubts about their belief in God. And the percentage of those who have definite or occasional doubts on church practices increases from 37% of parents, to 39% of freshmen to 74% of seniors. About 34, 26 and 67%, respectively, have definite or occasional objections to religious practices. Further evidence of increasing doubts about God is evident in the lower proportion of

seniors as compared with freshmen who believe that God is creator; God is merciful; God is not selfish; and that God provides, with the difference being most pronounced in the latter concept that God provides. Seventy-two percent of the freshmen believe in this, but only 35% of the seniors subscribe to the idea.

Membership in church organizations among the three groups of respondents is about 18%. However, membership in nonchurch organizations increased dramatically to 22% of parents and freshmen and 69% of seniors. Giving financial contributions to the church, going to confession and communion, seeking help or personal guidance from the priest are practiced less by the children than by their parents.

Except for life occurrences such as rain, eclipse, sun, and moon which are clearly attributed to God, and winning the Sweepstakes, getting a big catch of fish, and having accidents which are considered a matter of luck, the apparently wavering Faith in God and religion is accompanied by an increasing faith in science and belief in man's efforts. Relatively fewer parents and more of the children (more of the seniors than of the freshmen) atribute such things as crop yield, choice of spouse, number of children, choice of occupation, etc. to man's efforts. This is to be expected after a child has gone through 4 years of exposure to science and the notion that man is the master of his fate. It is significant to note also that more than one-half of the parents and the freshmen and two-thirds of the seniors believe that science and religion are separate. Apparently there is a *compartmentalization* between science and religion in order to allow a certain degree of coexistence.

When children were asked who had influenced them most about their belief in God, a total of 80% mentioned father, mother, relatives, and friends and only about 20% mentioned priests and other churchmen. It is tempting to speculate that one possible explanation for less influence of priests is the tendency of the latter to talk less and less about God and more about other things.

All these findings suggest generational differences in religious beliefs, with children being more skeptical than parents and senior students even more so than freshmen. On the other hand, belief in science is stronger among children than among parents and more so among seniors than freshmen. The generation gap, therefore, is not just a matter of age but a meaningful social difference.

In the Philippines where about one-half of the population are 15 years or younger, youths cannot be ignored. In the past, authoritarian relations were based as much on age as on any other criteria. Now, change is the obsession of the day and old age is no longer an essential desideratum for power and leadership position. Being young is no longer an obstacle in holding a position of power and authority and being old is no longer equated with wisdom. The premium is more on youth and on staying young, although age still enjoys respect.

As Heirich says, time is a setting, "a backdrop against which events assume different meanings" (167). It is also very much part of social change that norms which govern people's behaviour at different age groups change over time such that what was considered as disrespect for old age before is now regarded as acceptable behaviour, defined as youths' right to assert themselves and contribute to the development of matters which will affect their lives as well as that of the nation. It is also not surprising that ideas or behaviour labelled radical, immoral, or unforgivable at one point may be quite conventional at a later date. An innovation in the past eventually becomes common practice and part of everyday life. For example, the use of credit for production rather than for consumption purposes has been introduced to farmers. This involves a redefinition of what constitutes a progressive farmer. Many years ago, he was defined as one who was free from indebtedness. The transition process promises to be a painful one. Borrowing to meet basic needs and emergencies has been part of everyday life ever since, but obtaining and repaying a loan for productive and investment purposes in anticipation of larger gains have yet to be learned, new norms developed and internalized. The temptation and the pressures to "misapply" or to use the loan for consumption are to be reckoned with.

Time and goal attainment

Development experts speak of short-run and long-run objectives and/or effects when making development plans. There are also short-gestation and long-gestation projects, the former taking less time to complete than the latter as in the case of a rice crop

which takes 4 months or less compared with a coconut crop which takes 7 or 8 years for the first fruit. But the judgment as to what is short and what is long is not an absolute one. It is interpreted within a particular context. In Norway where the life span is more than 75 years, 25 years is one-third of a lifetime, but in some African countries, where a man can expect to live for less than 40 years, that is two-thirds of a lifetime (268, p. 14).

Another factor which affects a country's concept of long-term and short-term is the sense of urgency with which a particular goal needs to be pursued. Where people are facing starvation a 1-year project may be perceived as quite "long-run" because of the very immediate need for food. Projects that have a long-gestation period face a danger which could be judged as failures before they have had a chance to succeed. On the other hand, what should be long-range projects are sometimes treated as 1-year or 2-year undertakings; thus arriving at a verdict of failure is almost inevitable. Community development, rural reconstruction, and adult education are not overnight tasks, but they are usually programmed as such to the great prejudice of any substantial accomplishment. Sometimes, however, a project is judged a success because it has not had a chance to fail.

Some goals are immediate and some are remote and, in the case of the latter, long periods of time may roll by without any sense of attainment in sight. It also happens that deflections or even major changes from the original goal may occur, while moving toward the remote goal, or the relative importance of the goal may change. A project on nutrition education may end up an all-out effort in increasing productivity if nutritionists discover that malnutrition is essentially a lack of food supply.

At the individual level, we talk about aspirations - man's hope of attaining something in the future. But aspirations may remain mere wishes unless present gratification is delayed in order to achieve an aspired-for future. Sometimes the higher the level of aspiration, the greater the perserverance required. People in the developing countries are, therefore, exhorted to sacrifice now and defer their expenditures on consumption and luxury items in order to save resources for productive enterprises needed for a more abundant future. We cannot, however, postpone gratification too long for as Lord Keynes said - "In the long run, we are all dead."

Another piece of rhetoric which is quite popular in the development literature is the *revolution of rising expectations* which is usually associated with volcanic and violent implications. To illustrate this phenomenon empirically, data gathered at two different time periods with a 6-year interval are given. The respondents were 370 household heads in seven farming villages in Laguna who were asked to indicate educational and occupational *aspirations* for their children. A second question was asked about actual expectations considering their existing circumstances and livelihood (Table 163). From the data, we can make the following observations:

Over a 6-year period, there was a general rise in level of parental aspirations for their children both for education and occupation. The proportion of parents wanting college education for their children almost doubled from 36 to 69% with a corresponding reduction of those wanting only elementary schooling (29 to 8%). Those whose earlier aspirations were for their children to become farmers declined from 22 to only 4%.

Heightened parental aspirations were also accompanied by greater expectations. Those expecting high school education increased from 14 to 30% and from 6 to 14% for those expecting college education. Expectations for white-collar occupations likewise increased from 6 to 10%.

There are more "don't knows" for expectations than for aspirations. Apparently these parents know what they want for their children but there is a high degree of uncertainty as to whether they could get what they want.

Within a 6-year period, the shift in aspirations and expectations were both more toward college education and white-collar occupations. The dreams and expectations of parents for their children were definitely away from farming in spite of some improvement in material level of living, increased income attributed to increased yields by a majority of the farmer-respondents, and their modernizing outlook in farming. Apparently, even the changes in farming have not made it attractive enough to make them want their own children to be farmers. Their attraction is toward an occupational syndrome marked by less physical hardship, greater income instability, less exposure to

the risks of natural calamities, and in many instances, higher income and security for the future.

The largest differential observed in Table 163 is that between level of aspiration and expectation both for education and occupation. Although 69% have aspirations for college education, only 14% expect this to happen, considering their available means of livelihood. Although 53% wish their children could have white-collar occupations, only 10% expect this to happen. Although only 4% want their children to be farmers, 25% of the parents, when faced with the realities, think their children will be farmers.

The other type of differential which could occur but which cannot be determined from the data at hand is the difference between expectation and actual fulfillment. How many of those who expect their children to be in white-collar jobs will eventually have the satisfaction of seeing them get there? In terms of the larger social issues frequently being raised nowadays, which of these two gaps contributes to the buildup of social frustrations: the *aspiration-expectation* gap or the *expectation-fulfillment gap?* Does the existence of these gaps necessarily lead to the accumulation of "steam" that could be potentially explosive? Although in 1963, the proportion of parents who aspired for college education was 36%, those who expected this to materialize was only 6% or a 30% drop from aspiration to expectation. In 1969, those who aspired for college education increased from 36 to 69%, but only 14% expected a realization of their aspiration. This means a 55% reduction from aspiration to expectation. With regard to occupational aspiration in 1963, 31% wanted white-collar jobs for their children, but only 6% expected that this would happen. This means a decline of 25% from aspiration to expectation. In 1969, those aspiring for white-collar occupations increased from 31 to 53%, but only 10% expected to see their dream fulfilled. This means a reduction of 43% from aspiration to expectation.

Based on all this evidence, we arrive at the conclusion that rising aspirations may not necessarily lead to "social explosion" because no matter how high the aspirations, they tend to come down to adjust to the realities of what seem to be more achievable. With reduced expectations, the probability of goal attainment improves and the frustration abates.

Time as a resource

To someone who is landless, poor, and little-educated, there are at least two remaining assets - *his time* and *his energy*. With limited education, training, occasional poor health and malnutrition, his time is not worth much, except to the extent that he expends energy over a time period. What he earns depends on how many hours he spends working on a particular manual job. By contrast, a highly educated, talented, trained man, usually healthy, commands a higher price per unit of time devoted to a task. We say that his time is very valuable. One hour of his professional services can be equivalent to a week or more of an unskilled manual worker's time. In effect, when we educate, train, and improve the skills of a man, we are increasing the market value of his time.

Even our definition of vacation and leisure depends on the value we place on time and whether the time spent on vacation or leisure is voluntary or forced. In other words, it is not leisure when a man has to stay home and be idle, not because he wants to but because there are no employment opportunities. A vacation becomes meaningful only if a man devotes much of his time on productive activity and deliberately sets aside part of his time for "consumption" or purely personal and family satisfaction. If a man has no regular job and is employed only occasionally, the in-between job periods are not regarded as vacations for he has not chosen not to work. He is not on vacation by choice.

Even in the poorest households, time is an available resource that is allocated by the members for the performance of different roles essential for everyone's welfare. Popkin's analysis of time allocation in the household leads us to reconsider the common notion that poor rural households are not time-conscious. Perhaps they are not tied to time as specifically measured by the clock, but they are conscious of time as a resource possessed by every household member for getting household chores, child care, and income-earning activities done. As Popkins points out, the value of the mother's time is a critical factor. If the market value of the mother is high, she might join the labour force and use other persons whose time has a lower economic value to perform household chores and child care. She may use older children, relatives, or hire maids as her substitute in performing these tasks.

Reduction in available time for child care due to labour force participation or large family size in rich or poor households has corresponding repercussions on the welfare of the child for recent studies have shown that time can play a central role in the child's physical development just like food input. Child-care time includes such elements as time for cuddling; loving care; feeding the child - breast milk and prepared foods; time spent in food preparation and food marketing; use of medical services; fetching of water and fuel. Breast-feeding is a time-intensive process relative to bottle-feeding and cannot be done by a substitute. Some foods require more time to prepare and others require more time to feed the child. Loss of time available for food preparation and feeding may affect the dietary intake not only of the child but of the entire household as well. Water supply also has an important time element and direct welfare implications on household members, especially on the mother and the children. Households with private water systems require 8.4 minutes per day to obtain water compared with 27.4 minutes for those with no water system. Moreover, they have to travel only 8 metres to obtain this water compared with 181 metres for those with no water system. In some villages, water supply is so far away that for most households many persons bathe only twice or thrice a week. Cooking fuel reduces time spent for gathering and chopping wood and can potentially increase time for child care (274).

Another illustration of the potential impact of high market value of mother's and older children's time on nutrition and child welfare was observed in the banana plantations. Because of their available job opportunities they had little time for chores and there were very few adults available for food preparation and child care.

The female emancipation movement can in many ways be regarded as an attempt to redefine what is socially desirable and individually satisfying for a woman to spend her time on. If women define their place as in the home, time spent for this purpose is socially desirable and time spent away from home and family could arouse guilt feelings unless acceptable substitutes to perform her household tasks can be found.

Time as timing

We often hear the expression "time is running out" or we are "racing against time" with reference to the urgency of getting problems solved, especially among the so-called late-comers in development. The whole world is engaged in a frantic effort to catch up with outer space, with exploding population, with the First World or the Second World, with a neighbour, a rival country, or even with oneself. To catch up, one needs to move, to change, to modernize. Introducing change and accepting change toward modernization involves many time decisions such as *when* to introduce *what* or *when* to *do what* as in the case of farmers deciding when to plant, when to harvest, when to market. Where agriculture is practiced strictly according to natural forces, time decisions are dictated by weather and climatic conditions. There is not much choice involved. Farmers in such situations plant when the rains come, harvest when the crops are ready, and market as soon as they need the money. This is a subsistence-survival type of behaviour where the natural forces govern.

A study by Librero found that older farmers decided on their dates of planting by the use of an astrological calendar which gives a rough prediction on weather and climate for the ensuing year. A literal translation of the weather prediction in this calendar for the planting season of June 1962 says something like this: For the first 16 days: "Changing and continuing warm weather; an overcast sky" and for the remainder of the month: "Ideal weather. Drizzle."

The study also found that, in their time decision, farmers give varying weights to the importance of natural factors, under different conditions of irrigation and soil fertility, relative to price and market conditions (210). Where good water control is available throughout the year the farmer has a choice not only of when to plant but also of what to plant. He is not bound by the coming of the rains. He may even deliberately plant off-season for better prices. Where technology and environment are well developed, it is more likely that time decisions are arrived at after weighing alternatives because alternatives do in fact exist. In modern society, for example, mothers can have their babies when they want them and only as often as they choose.

Timing in development means a number of things:

(1) *Doing what is apropos at the right time.* This requires a good measure of perceptiveness with respect to the different variables operating in a particular

situation so that appropriate action is taken when it should be. For example, if field exposure is to be provided in the training of personnel for development work, it is not just a question of what kind of field experience but when should it be introduced in the training program. Should it come at the beginning, the middle, or the end of their training? One might suspect that the effects of field exposure would differ depending upon when it is introduced. But then it is very likely that field exposure given at different periods during the training program would be designed purposely to perform varying functions in the learning process. This decision would also depend upon the background of the trainees. The problem of *when* is therefore as important as the problem of *what*, but the former is seldom given the scrutiny that it deserves, perhaps because its impact is difficult to isolate from the *what*.

Timing is a product of accurate analysis and diagnosis of a problem situation. Sometimes the introduction of an innovation is successful because it has taken advantage of a crisis, as in the case of new rice seeds being welcomed as *manna* from heaven because they come after a lean harvest due to a previous disease-ridden rice crop. Increased appropriations for weather forecasting may finally come to a country after an erroneously predicted typhoon has wrecked havoc along its path. At such a time, to be against improving weather forecasting facilities would be tantamount to being against humanity. In credit as well as in aid, timeliness is an essential element. To be of any real significance both must come when most needed. There is a well-known proverb in Pilipino which runs like this: "Aanhin pa and damo kung patay na ang kabayo." (There is no use for the hay when the horse is already dead.)

(2) *Duration or length of time it takes to accomplish a particular task or how long something lasts.* In deciding what projects to embark on, duration is not an inconsequential variable. To a local politician with his heart set on reelection, results have to be visible within a short time; hence long gestation projects with payoffs in the more remote future are not likely to be favourably acted upon. In the practical everyday world of foreign-assisted projects, the question always asked is: How long does the grant last? When choosing between a tractor and a carabao as a source of power an important consideration is their comparative life span.

(3) *Rate or speed at which events take place.* They are either slow or fast. The most nagging illustration of how preoccupied we are with the *rate* or *speed* variable in development is the so-called population explosion. The use of the term *explosion* serves to dramatize the rate at which human beings are being multiplied. To achieve development we seem to want most things to go fast and only a few things to go slowly. We want slow population growth, fast economic growth, fast decline in death rate; faster (more efficient) methods of work so that people may slow down or relax over a longer weekend. We want children to grow up fast but desperately look for remedies to slow down the aging process.

Time as social and cultural meaning

Although the measurement of time can be made as accurately as split seconds, its meaning is far from being absolute. The meaning and significance of time has to be seen against a social and cultural framework. The nature of the time conception and the range of the temporal perspective that governs life, living, manner of planning, doing things, and the character of the prevailing time unit differ in different societies and so do the roles of the past, the present, and the future. In traditional societies "the present is conceived of in terms of the past, while the future is significant primarily as a projection of the present" (340). Reckoning of time ranges from the cock's crow, the setting of the sun, the number of cigarettes it takes to reach a place or to get a job done, the punch of the bundy clock or the automatic timer in an electric oven. As a society modernizes, time specification becomes more precise for it relates to greater role differentiation, more highly specialized division of labour, and more exacting time allocations. In a traditional setting there is a rhythm of life; in a modern society schedules predominate, a predictable regularity is evident, and time is a resource, an investment of which produces certain outputs. Something must be worth the time invested in it or otherwise, why should anyone do it? No time should ever be wasted.

Amnuai's analysis of the "Asian Mind" presents Asia as a time concept. He says: "Time in Asia does not have a beginning. While the West thinks in terms of space-time continuum and perhaps views history as a continuous process having a beginning and progressing toward an end, Asians see time as phases rather circular in form. One season

follows the next, one life leads into another, one king's reign is followed by another's, one dynasty moves into the next, one calendar divided into twelve parts, each named after an animal, moves into the next. Hence, while time and punctuality are of cardinal importance in the West, Asians do not take time seriously. Eastern Standard Time might well be said to mean 'sometime in the morning' or 'about evening'" (303, p. 82).

Among people in the developed countries the frequent complaint is "I don't have time," while in less developed countries this is seldom heard except in the more urbanized centres. Ironically, this does not mean that there is more time available in our society than in modern ones. There are just more competing alternative activities in the latter and, therefore, the question of having "plenty of time" or "lack of time" is relative to the available alternative uses of time.

Time also gives meaning to age. Science has found innumerable techniques to prolong life, but society is not always able to provide meaningful roles for those who live long. What is the point in living up to 80 years if, at that age, he is regarded as a social burden which nobody wants to bear? In the Philippines, Old Folks Homes have not yet become the institutional way of dealing with the problems of the aged, as they have in many developed countries. Aging parents and grandparents continue to have a welcome place in the family circle and studies of family and household structure show that higher socioeconomic status tends to be supportive rather than destructive of these social arrangements. (See Chapter on the Family). Perhaps indicators of quality of life should include the status and role of old people, in the same way that it has become fashionable to be concerned with the status of women. There should be as much provision for the well-being of our senior citizens as for our youths.

Time in technology

One characteristic of modern society is the extent to which technology dominates life. An analysis of modern technology shows that there is almost always an essence of time and timing if it is to be effective. Time, in many ways, is the excuse for its creation because there are many alternative uses of time in a developed society and, therefore, one has to be more efficient in allocating time to many more competing activities. Examples of the time element in technology comes very dramatically from agricultural technology. Rice, for instance, has so-called late-maturing and early-maturing, photoperiod sensitive and nonphotoperiod sensitive varieties. Late and early maturity refers to the length of time it takes to grow the rice plant. Photoperiodism refers to whether or not the variety can be grown any time of the year. For modernization to occur in rice production we need early maturity and nonphotoperiodism so that we can plant more than one crop of rice any time of the year. In introducing the new rice variety there is much emphasis on the exact time requirements for the different steps in its growth. The right things, such as fertilization, weeding, spraying etc., have to be done at the right time in the right sequence. In controlling stemborer, which is one of the curses on rice production, it is important to understand its life cycle, and the chemicals for its control have to be applied at the correct stage to be most potent. Fertilization has to be done after, and not before, weeding so that weeds do not outgrow the rice plants. Spraying has to be timed also for maximum effectiveness of action against pests or disease, as well as for the safety of consumers, particularly for fruits and vegetables. Eating fruits that have been sprayed shortly before harvest can have toxic effects on the human body.

With the modern multiple-cropping systems currently being researched and developed, timing of operations is critical. As Banta explains: "In the traditional system of growing rice it does not matter if the farmer is 4 or even 6 weeks late in planting his rice but in a cropping system in which a farmer is planning to grow 3 or 4 crops in one year planting dates are critical. A crop must be harvested and another crop seeded immediately if the farmer is to grow the crops at their optimum periods. The critical times in intensive cropping systems are harvesting and planting which usually occur within one or 2 days of each other.... Even the labor utilization and subsequent production costs of intensive systems are directly related to the requirement for rapid field operations. The relative production intensity and the size of area a farmer can handle are thus determined by labor usage and availability. Substitution of tractor power for hand labor in an intensive system has a marked influence on these limiting factors..." (25).

Another illustration of time in technology lies in the practice of medicine. Doctors prescribe drugs to be taken in definite doses at specified time intervals in

consonance with the properties of the medicine and the workings of biology. Modern methods of population control such as the pill and even rhythm are based on the principle of timing. In this sense, rhythm requires a finer conception of time and a higher level of understanding of the relationship between timing and the reproductive mechanism.

Time indices of modernization

Given the indispensability of time as an element in development, educating for time consciousness is a challenge and the following may be regarded as meaningful indices of modernization:

(1) *Degree of time differentiation prevalent in a society.* This refers to the prevision with which people refer to time and extent to which they behave in accordance with time specifications. How finely or grossly, for example, is a day divided? Is it just morning, noon, afternoon, and evening or are there hourly specifications such as, if a man asks: When are you going to start working on the bridge? The replies might range from "Tomorrow," "Tomorrow morning," or "Tomorrow morning at 8 o'clock." The latter reply shows a greater degree of differentiation in time, but this differentiation cannot take place if mechanical devices for telling time are not available or, if available, they have a meaning other than for keeping time. It is possible for an illiterate man to wear a wrist watch as a status symbol and not as a device for telling time.

(2) *The extent to which activities have time limits.* To an initiate into the Western coffee or cocktail circuit, it is somewhat baffling to receive an invitation that reads: "Cocktails from 7:00-9:00 p.m." Dinner might follow but those invited for cocktails are not necessarily invited for dinner, so that they should leave on or before 9:00 o'clock. If a conference is called from 9:00-10:00 a.m. it starts at 9:00 and ends at 10:00. It is not possible to go on forever because people involved have other demands on their time. Again, in a modern factory where work hours may be from 8:00-12:00 and 1:00-5:00, services rendered beyond those specified hours are reckoned as overtime work subject to extra pay at special rates.

(3) *The presence of schedules and extent of adherence to such schedules.* One can be so modern that even babies can be had by appointment. Schedules reveal planning, an element of predictability and control over what is going to take place in the future.

(4) *Concept of time in technology.* It is one thing to learn that fertilizers improve the growth of plants but it takes greater depth to learn that fertilizers need to be applied at particular periods during the growth of the plant in order to obtain maximum benefits. In many instances, complaints on the effectiveness of technological innovations arise from the failure to comprehend the time element in the application of the innovation.

(5) *Presence and number of alternative activities competing for one's time.* If a farmer reduces the amount of time spent for growing rice, what can he do with the time he saves? If a housewife saves so many minutes from her cooking, what alternative activity does she have? The developed countries are now faced with the problem of leisure and recreation resulting from shorter working hours in contrast with underemployment and unemployment in the poorer countries. To say that the relative amount of time allocated to specific functions within the society is a reflection of what people in that society consider important or what they value is to misjudge the situation. It is possible that time allocation is a function of lack of alternatives, either actual or perceived, rather than a real function of values. A person might be spending most of his waking hours on the farm and yet not have any real love for it, except that there is no other way open for him to make a living. In this connection, perhaps a greater measure of modernization is the extent to which an individual has a choice in what he wants to spend his time on.

SUMMARY AND CONCLUSIONS

Time is an indispensable element in analyzing change, growth and/or development, for we cannot speak of change unless some event has taken place over time. This chapter describes the different aspects of the time dimension: change as a function of time; time and development strategy; time as a setting; time and goal attainment; and time as a resource; as timing; as social and cultural meaning; time in technology; and time

indices of modernization.

Time and development strategy

Theories of growth and development imply movement of a society from one stage or one level to another over a period of time. It is only on a time dimension that changes in social structure become evident. On the basis of development indicators, countries are referred to as underdeveloped; less developed or developing (the so-called Third World); and developed or overdeveloped (the First and Second Worlds). Recent developments, however, have created a Fourth World of oil-exporting countries. At different stages or levels of development, the priority problems differ and therefore different strategies are called for. Within a country like the Philippines, its different regions are characterized by uneven and unequal development; hence models of developing nations are equally applicable - and so is the notion of *essentials* and *accelerators*. But to translate the concepts of priority and critical development needs into action is very much a political process because resources are always limited. Between the articulate and urgent demands of the urban sector and the massive but relatively passive and less centrally visible needs of poor rural communities, it has often been more expedient to satisfy the former and postpone the latter. In the meantime, the rural-urban trek continues as the urban problem becomes even more acute and more glaring and the seemingly benign rural sector appears even less menacing in comparison.

Two decades ago, our rural development mandate was relatively simple and was embodied in Magsaysay's famous pronouncement that the "little man is entitled to a little more food in his stomach; a little more clothes on his back; and a little more roof over his head." Today, the definition of rural development imperatives and the indicators of quality of life have indeed become much more complex and much less tractable. We have gone full circle in development strategy, from the multipurpose programs of the 1950's to the single commodity or single purpose programs of the 1960's to the current rediscovery of integrated rural development. Unlike some development experts, we are not prepared to write off the community development programs of the 1950's as a failure. It was the first significant, systematic and national effort to reach and deliver social services to the barrio, while at the same time trying to enlist barrio people's participation. The CD program was the first major exposure of our national leadership, our professionals, and politicians to the problems of the rural sector and the first national program outside the public school system which recruited college graduates to serve the rural areas. It has helped establish the primacy of the village and the villager as both beneficiary and active participant in national development.

Time as a setting

Time is a setting, a backdrop against which events assume different meanings. In the Philippines where about one-half of the population are 15 years or younger, youths cannot be ignored and the norms which govern people's behaviour at different age groups change over time. Where in the past, age was an important basis for authority, now it is regarded as acceptable behaviour for youths to assert themselves. Nevertheless, there is such a phenomenon as the *generation gap* which is illustrated by generational differences in religious beliefs, with children being more skeptical than parents and senior college students even more so than freshmen. On the other hand, belief in science is stronger among children than parents and more so among seniors than freshmen.

Social change also involves innovations which eventually become common practice and part of everyday life. For example, in the past, a progressive farmer was defined as someone who is free from indebtedness. Now, the use of credit for production rather than for consumption has been introduced and it is no longer socially "uncomfortable" to be a borrower. However, applying the loan properly and repaying it is much more difficult to learn and internalize.

Time and goal attainment

In making development plans, we have short-run and long-run objectives, short-gestation and long-gestation projects, but the concept of long-term and short-term depends on the context. When faced with starvation, a one-year project becomes a long-run undertaking. In assessing goal achievement, projects that have a long-gestation period face the danger of being judged failures before they have had a chance to succeed. Sometimes, however, a project is judged a success because it has not had a chance to fail.

At the individual level, we speak of aspirations and the revolution of rising expectations which are usually associated with "violent explosions." An analysis of educational and occupational aspirations and expectations suggests that such "social explosions" may not necessarily materialize because, although aspirations spiral, expectations tend to be more attuned to reality and, therefore, are scaled down to attainability.

Time as a resource

To someone who is poor and little-educated, his two major assets are his time and his energy, both of which are not worth much unless the quality and quantity of his output from time and energy expenditure is improved. In effect, when we upgrade a man's skills, we are trying to increase the market value of his time. Even in the poorest households, time is an available resource that is allocated by the members for the performance of different roles essential for everyone's welfare. In this case, the value of the mother's time is a critical factor. Whether she joins the labour force or performs the major housekeeping role has corresponding implications on the welfare of children and on the family in general. The attempt, therefore, to increase female labour force participation needs to look into the market value of her time and the availability of effective substitutes to absorb her household tasks.

Time as timing

Timing in development means doing what is apropos at the right time, which implies an accurate analysis and diagnosis of a problem situation. Timing also refers to the duration or length of time it takes to accomplish a task or how long something lasts, and to the rate or speed at which events take place. To achieve development we seem to want most things to go fast and only a few things to go slowly such as a fast economic growth and a rapid population decline.

Time as social and cultural meaning

As a society modernizes, time specification becomes more precise for it relates to greater role differentiation, more highly specialized division of labour, and more exacting time allocations. Time also gives meaning to age. Although science has found many techniques to prolong life, society is not always able to provide meaningful roles for those who live a long time.

Time in technology

An analysis of modern technology shows that almost always there is an essence of time and timing if it is to be effective. Time, in many ways, is the excuse for its creation. For example, one of the most important merits of the new rice varieties is their early maturing quality. The right things have to be done at the right time in the right sequence to obtain maximum results.

Time indices of modernization

Given time as an indispensable element, the following may be regarded as indices of modernization: degree of extent to which activities have time limits; presence of schedules and extent of adherence to such schedules; concept of time in technology; and presence and number of alternative activities competing for one's time. Everything takes place within the context of *time*.

CHAPTER XII

WHAT LIES *BEYOND MANILA*: SOME REFLECTIONS

Although this volume is an empirically-based attempt to stimulate, in a small way, greater rural-mindedness among the readers and to advocate positive discrimination in favour of the rural sector, one can neither be so naive nor so self-righteous as to believe that the answers to our rural problems are simple and comfortable. Considerable exposure to research and to the tough realities in rural development can only make one humble and less sanguine about "what will work." It is infinitely easier to tell someone else that what he is doing is "wrong" than it is to tell him how he can do it "right." Knowing how difficult it is "to get things done," we can only have admiration and respect for those who actually implement programs, carry out projects, and deliver development services where it really matters or makes a difference in the lives of the rural poor.

From the analysis and synthesis of empirical evidence defining our rural problems and from the easy and "privileged" position of hindsight rather than from the wisdom of foresight, some thoughts are offered for the reflection and action agenda on rural development.

Greater Manila and the rest of the country

By all indicators, Manila and its appended environs is *different* from the rest of the country. It has more of the "good things in life" than any other region and promises to be even more so. This Metropolis is our image to the world, our "crown jewel", and the dreamland of many a rural youth, but *it is not the Philippines*. We are a nation of villages and villagers, Manila's skyline notwithstanding. The reaction of some people to the title of this volume is that *Beyond Manila* there is only the Pacific Ocean. If this is indeed so, then all those rural problems previously described must have been a fantasy from which we might never want to wake up. But no matter how hard we try, *we cannot wish away the existence of a rural majority most of whom are poor.*

Confronting the realities of poverty, unemployment, and inequality

For some time now, *poverty, unemployment,* and *inequality* have been the "bread and butter" of social scientists and development experts. These concepts have become so much part of everyday development fare that they are fast degenerating into rhetorical abstractions and handy justifications for whatever we want to do.

We cannot "attack" poverty, unemployment, and inequality in the abstract. To implement a policy of reaching the poorest 40% of the population, the observation that 59% of families in the lowest income groups receive only 24% of total family income is academically informative and politically sensitizing, especially when placed side by side with comparable figures from other countries. But it is not operationally useful for development program designers and implementors. The definition of these problems has to be disaggregated by region, by province, by municipality, by village, and ultimately even by household. All the data presented in this study point to the ubiquity of rural-urban differentials, whether they are broken down by region or by province, and one can guess that even by municipality there will be significant differences between the poblacion (town proper) and the village. In the disaggregation process, we will doubtless find that poverty and inequality manifest themselves in varying degrees and in ways different from what the national statistics suggest. For example, for the country as a whole, in 1972 only 35.4% of births were attended by *hilots* or traditional "midwives." When we look at the provinces, we can see that the majority of births were attended by *hilots* rather than by doctors, nurses, or licensed midwives, as shown in the following: Davao Oriental, 80%; Oriental Mindoro, 76%; Agusan del Sur, 69%; Sorsogon, 69%; and Camarines Sur and Norte, 61%. There are municipalities where there is no government or private physician in residence.

Even in terms of literacy, the national figure for 1970 is 83.4%; 92.8% for the urban sector but only 78.7% for the rural sector. The statistics for some provinces illustrate further the magnitude of these differentials. The urban-rural literacy rates for Cotabato are: 84.9 and 61.3%; Ifugao, 71.0 and 49.3%; Mountain Province, 91.7 and 60.6%; Lanao del Sur, 68.6 and 61.7%, respectively. These provinces deviate considerably from the national picture.

With respect to income, 59% of Philippine households were classified as low-income in 1971, but Aklan, Antique, Sorsogon, and Surigao del Norte reported 90% or more households in this category, and Isabela, Ilocos Norte, Masbate, Leyte, and Western Samar more than 80%. On the other hand, Mandaluyong, San Juan, Navotas, and Rizal registered only 15% or less of their households in low-income. Needless to say, 82% of all low-income families in the country are located in the rural areas.

Agriculture remains the major provider of employment and, in the urban areas, domestic service and sales work (peddling, vending, and hawking) absorbs labour. In the rural areas, unemployment does not seem to be the problem. The situation is more of underemployment, seasonality, low wages, and low productivity employment. Perhaps even more important is the large portion (one-half) of the working age population that is not in the labour force. Two-thirds of these *nonparticipants* in the labour force are in the rural areas and the majority of them are women who perform housekeeping roles. Such things as nutrition, health, pre-schooling, family planning, sanitation, clothing, etc. are very much within the realm of household functions. How can we make women or the household in general more effective and productive in this role so that the quality of life in the home can be improved? There are those who argue that women should participate in the labour force just as much as men do. Studies, however, have shown that many of our women still consider the traditional role as their primary role even if they are in the labour force. Female employment, therefore, does not eliminate household responsibilities for her; it only reduces the time available for it. There is evidence that Filipino men participate more in household functions than the typical stereotype suggests. Finally, no matter who performs the function, "household production" is an inescapable fact of life that absorbs a lot of time and energy, especially when modern conveniences such as electricity and running water are absent.

Among our youths, more than one-third belong to the category *"others"* as defined by labour force statistics. This is a state where the individual is neither in the labour force nor in school and is really not doing very much, except to be of marginal utility to the household. They are probably a major dependency burden without much promise of anything. Youths in this "twilight zone" or *deadend* seem to be one of our greatest challenges because their future niche in poverty seems to be assured unless something dramatic happens.

Another way of "decomposing" poverty and inequality is to look at different groups in society with respect to how much they possess or enjoy the "good things in life." The usual dualities, such as rich-poor, landlord-tenant, large farmer-small farmer, management-labour, employer-employee, etc., have become less meaningful and have tended to hide or neglect other more significant inequalities. To enumerate some of them, we have: agricultural landlords versus urban real estate landowners; farmer versus agricultural landless; *organized labour* (labour unions) versus *unorganized labour* (including self-employed, unpaid family workers, and the unemployed); farm versus nonfarm or industrial workers; lowland versus upland farmers; irrigated versus rain-fed farms; those who have roads and transportation versus those who hike along mountain trails; those who can call a doctor versus those who have no doctor to call; those whose children go to good schools versus those whose children are in rural schools; college graduates versus elementary school leavers; professionals versus skilled or unskilled workers; homelot owners versus squatters; homeowners versus renters; those who have light and water versus those who do not; the well-fed versus the malnourished, and so on. If we examine poverty and inequality in this manner, we can begin to see that there are many other deprivations besides land. Of the many inequalities we are heir to, that between male and female seems to be the lesser of our problems.

By equity we mean *greater equality in quality of life*, not merely in distribution of agricultural land, but in access to good schools, to other social services such as health, nutrition, family planning, electricity, water, and physical infrastructure such as irrigation, roads, bridges, etc.

An analysis of what determines the incidence of poverty shows that schooling is the most important factor, with college-educated family heads exhibiting the lowest incidence of poverty. Farmers and farm workers are the least educated and the poorest of all occupational groups. Their children also have the least chance of obtaining higher education. Although educational attainment has improved for everyone, the gap between the urban and rural sectors has widened considerably. Furthermore, there are systematic and significant differences between private, urban, town and rural schools, with the latter consistently showing the lowest levels of performance. Educational policies, therefore, need to be reexamined for their equity and future employment implications. The rural poor have everything stacked against them, while the urban rich seem to have every advantage in their favour. How can we alter this state of affairs so that better quality schooling can be made more equally available?

Finally, contrary to the popular notion that the poor are happy the way they are, available empirical evidence indicates that rural people tend to be unhappy twice as often as the urban. Although Filipinos, in general, are optimistic about the future, the rural populace are less optimistic than the urban, not only with respect to their own life but also in their assessment of the national situation.

Toward a redefinition of landlessness

In the past, the slogan "land to the tiller" seemed a most appropriate one. The tenants were the landless then. Nowadays, landless means hired farm workers who do not have land to till, let alone own. When farmers, even "land reformed ones," utilize hired labour much more than their own or their family's, who is the real tiller of the land? Farmers' increased use of hired farm labour has very positive consequences for employment but raises a basic question about the "land to the tiller" rationale for land reform. Considering population growth, limited cultivable land, and the continuing dependence on agriculture as a major absorber of labour, we can only expect the number of agricultural landless to increase, not to decrease. Furthermore, even with the best intention and with the most assiduous implementation, land reform can have limited redistribution impact, as it covers at present only the tenanted areas. The 1971 Agricultural Census shows that 74% of farm area and 69% of total farms are operated by full and part owners. Less than one-third of farms are tenanted and since the majority of landlords are small (less than 7 ha), there is not that much land to "reform." It is significant that many provinces which exhibit a high proportion of farm area operate under full ownership and also have a high proportion of low-income families, such as Negros Oriental, Western Samar, Eastern and Northern Samar; whereas, Bulacan and Nueva Ecija which have high tenancy rates also have fewer families in the low-income category. These data suggest that there are factors other than farm ownership which determine income and quality of life. Perhaps in areas where tenancy is high, there is better quality, lowland agricultural areas; whereas, in provinces where there is a high proportion of farm ownership, land is not very productive and infrastructure is underdeveloped. At any rate, there is a need to reexamine the assumptions in land reform and to look at other ways of reducing inequality.

Let us look at another aspect of landlessness that is even more basic to quality of life than agricultural land. We all agree that every man should have a roof over his head but we do not say that he should also have a piece of ground on which to put up his roof. Although we have urban squatters, we have more rural squatters whose huts are "parked" on somebody else's land, either with or without the blessings of the owner. Rural squatters, however, unlike their Manila counterparts, do not mar our view of the country's "crown jewel" and are not as politicized; hence, they do not attract as much attention.

All these years, the picture of several village men carrying a house on their shoulders has been immortalized as the symbol of the Filipino Bayanihan (mutual help) spirit. Perhaps it is about time we peeled off this romantic image to find out why the house is being moved to another place. Chances are that the family has been asked by the owner to vacate the land on which his house is squatting. It is also very noticeable that such squatters have the most miserable looking huts. Residential landlessness is more prevalent in rural than in urban areas and is also likely to be the plight of the agricultural landless. For the rural poor, especially when they also do not have land to till, the transient status of their place of abode on "squatted" land is probably the lowest state in quality of life.

The long road to agricultural development

Although total volume of production has increased for rice, corn, sugarcane, and coconuts, productivity per hectare remains much to be desired. Furthermore, we have barely kept pace with population growth in the production of food. Even in rice, which is our success story, yield per hectare is way below the potential and is also the lowest in Asia as per 1973 figures reported by the Asian Agricultural Survey of 1976 (22). The situation with respect to corn is the same and productivity in sugarcane and coconuts has not changed much either. Swine and poultry production has become highly sophisticated and automated in certain pockets of commercial operations that supply the demand from the Metropolis and other urban centres, but meat and eggs seldom grace the tables of the poor. The bulk of pigs and chickens continues to be raised under "self-supporting" conditions. The dairy industry is practically nonexistent and we import 98% of total milk and milk products which are consumed mostly by middle- and upper-class households.

It is also wrong to assume that farmers who produce food will have more to eat. Because food production is their source of livelihood, they have to sell their produce in order to meet other basic needs. In the process, even rice farmers become net purchasers of rice.

Government investment for agriculture as a percentage of total government investment from 1968 to 1975 is as follows (22):

1968: 14.5%
1969: 17.8%
1970: 7.9%
1971: 15.8%
1972: 24.0%
1973: 18.8%
1974: 36.0%
1975: 25.7%

Although the increasing investment in agriculture is encouraging, indicators of agricultural loan activity from 1960-75 are not as positive. In 1960, the ratio of agricultural loans to total loans was 0.20. This declined continuously to only .09 in 1975. Despite all the programs in rice and corn, sugar remained the major borrower, with 57% of total agricultural loans accruing to sugar producers (327).

Who benefits from development?

In the name of poverty, unemployment, and inequality, we hold conferences; conduct training programs; develop new projects; obtain research funds; hire additional personnel; put up elegant buildings; organize missions and task forces; justify higher salaries, larger budgets; create new agencies; and even travel abroad. And then somewhere along the line, we conclude that "the rich are getting richer and the poor are getting poorer" oblivious of the reality that we, the professionals, have been very much a party to the "enriching process." Those of us who hue and cry about the social injustices and income inequalities in this world are happily at the upper end of the income distribution and are arguing for equality on a full stomach, with the vocabulary of at least 16 years of schooling, and are not about to write off a day's pay, a small project's research honoraria, or even more boldly take a cut in our salaries - even in the service of the poor, the small farmer, and the marginal men whom we so eloquently champion.

An honest analysis of who benefits from a particular development project should include participants from its conceptualization to its implementation. To zero in only at the target or intended beneficiaries is to miss the point. To illustrate, let us take an irrigation project. If financing is to be provided by a foreign agency, the project has to be developed, assessed, and approved by experts and consultants, both local and foreign. Contracts are awarded for construction, equipment, and supplies. Professionals and skilled and unskilled workers are hired. And only when the water flows from the irrigation system to the farmer's field can the farmer actually benefit from it. In the meantime, everyone - the experts, the consulting firm, the contractors, etc. - has received his corresponding "share" from the irrigation project. It would not be surprising if the first and most substantial recipients of "irrigation benefits" are international development experts, foreign consulting firms, and companies supplying heavy equipment, etc. There is nothing inherently wrong in this, provided that everyone involved in the process contributes his honest-to-goodness professional competence in

making the irrigation project operational and effective so that it can serve farmers' needs. Farmers benefit from the irrigation project only to the extent that all the previous participants have done their job well and with integrity. And if they have done their job well, they must have learned something about farmers and farming systems in the process of developing the project. The issue, therefore, that is so fashionable now in international development circles - whether large farmers or small farmers benefit more from development - is only a small part of the story. It bypasses the major actors and the more immediate and substantial beneficiaries. Irrigation, here, is used only as an illustration. The same analysis of who benefits can be applied to any other development program whether it be population, nutrition, agricultural education, etc.

What does rural development mean?

Rural development means that a nation's political will has been translated into a decision to allocate a major portion of its financial, material, and trained human resources toward the needs of the rural sector where a majority of our people live in poverty. Rural development is *expensive* and it also takes *time*. Therefore, an investment not only of *resources* but also of *time* is required.

In operational terms, rural development means:

(1) Making it possible for the rural populace to develop their productive capacity in order to increase incomes and purchasing power.

(2) Support for decentralization to strengthen the ability of the regions, the provinces, the municipalities, and the villages to identify and articulate their problems, to develop, propose, manage and implement programs and projects for their own respective areas. Only when they learn to make effective demands on the national resources can they be seriously taken into account.

(3) Participation of the rural population not only in terms of opportunities to express their needs and their will but participation in the employment component of whatever development projects are intended for them; and certainly, participation in the productive benefits from projects and programs purportedly designed for their welfare.

(4) Improving the quality of life and the quality of the rural people themselves by way of greater access to all the needed and existing development and social services.

(5) And finally, reducing the inequality between the rural sector and the Metropolis so that the rest of the country may have just a little bit more of what Manila enjoys.

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APPENDIX: Tables

Table 1. Percentage distribution of families by income class,

Region/province	Total						Percent of low income families which are located in			
	Low income Below P3000		Middle income P3000-P5999		High income P6000+		Urban		Rural	
Philippines	59.0		25.0		16.0		18.0		82.0	
Manila and suburbs	22.3		33.8		43.9					
Manila		20.0		31.5		48.5				
Quezon City		23.3		35.3		41.4				
Caloocan		23.2		37.3		39.5				
Pasay		34.2		31.6		34.2				
Makati		30.7		38.9		40.4				
Mandaluyong		9.5		42.9		47.6				
San Juan		12.5		43.5		44.0				
Navotas		15.9		31.8		52.3				
Ilocos Region	72.7		15.4		11.9		14.7		85.3	
Ilocos Norte		81.6		11.9		6.5		22.2		77.8
Ilocos Sur		77.1		16.1		6.8		15.8		84.2
Abra		84.9		12.6		2.5		12.5		87.5
Benguet		53.0		33.7		13.3		25.6		74.4
Mt. Province		82.3		13.3		4.4		0.4		99.6
La Union		44.5		26.4		29.1		17.6		82.4
Pangasinan		78.1		9.8		12.1		11.8		88.2
Cagayan Valley	75.7		16.5		7.8		9.1		90.9	
Cagayan-Batanas		75.7		16.7		7.6		12.7		87.3
Kalinga-Apayao		35.0		39.8		25.2		3.7		96.3
Isabela		82.7		11.7		5.6		6.1		93.9
Nueva Vizcaya		76.8		17.8		5.4		12.5		87.5
Ifugao		85.4		10.9		3.7		4.8		95.2
Central Luzon	36.6		41.8		21.6		22.4		77.6	
Nueva Ecija		25.7		50.7		23.6		24.5		75.5
Pampanga		39.6		36.3		24.1		17.0		83.0
Bulacan		40.5		39.2		20.3		27.8		72.2
Tarlac		51.3		37.8		12.0		20.8		79.2
Zambales		23.9		53.1		23.0		16.6		83.4
Bataan		37.9		29.5		32.6		27.8		72.2
Southern Luzon	51.4		27.6		21.0		22.0		78.0	
Rizal		14.4		35.2		50.4		81.5		18.5
Cavite		50.6		31.8		17.6		46.6		53.4
Laguna		52.5		33.7		13.8		52.7		47.3
Quezon		68.8		20.8		10.4		14.9		85.1
Batangas		62.2		26.1		11.7		3.6		96.4
Marinduque		68.5		23.0		8.5		1.2		99.8
Mindoro Occidental		36.1		27.3		36.6		24.5		75.5
Mindoro Oriental		64.8		17.8		17.4		2.5		97.5
Romblon		72.9		16.4		10.7		5.9		94.1
Palawan		48.6		29.2		22.2		6.7		93.3

by region, by province, urban, rural, 1971 (45, 322).

Region/province	Total: Low income Below P3000	Total: Middle income P3000-P5999	Total: High income P6000+	Percent of low income families which are located in: Urban	Percent of low income families which are located in: Rural
Bicol Region	74.7	16.4	8.9	71.1	92.9
Camarines Norte	61.7	22.1	16.2	13.4	86.6
Camarines Sur	72.2	12.7	15.1	-	100.0
Albay	71.9	24.8	3.3	11.5	88.5
Catanduanes	72.2	14.2	13.6	3.6	96.4
Sorsogon	90.8	8.0	1.2	16.5	83.5
Masbate	83.3	10.4	6.3	4.2	95.8
Western Visayas	65.2	23.8	11.0	22.9	77.1
Aklan	92.8	3.8	3.4	7.3	92.7
Capiz	66.3	27.6	6.1	11.1	88.9
Antique	93.5	4.2	2.3	8.9	91.1
Iloilo	61.2	25.1	13.7	27.8	72.2
Negros Occidental	57.4	29.2	13.4	31.5	68.5
Central Visayas	70.7	18.5	10.8	15.9	84.1
Negros Oriental	68.6	16.5	14.9	2.9	97.1
Cebu	72.3	18.3	9.4	23.9	76.1
Bohol	68.8	21.1	10.1	8.9	91.1
Eastern Visayas	79.0	14.0	7.0	15.0	85.0
Leyte	81.1	12.6	6.3	17.2	82.8
South Leyte	74.8	16.3	8.9	12.4	87.6
Eastern Samar	71.4	16.4	12.2	16.6	83.4
Northern Samar	72.2	16.9	10.9	14.6	85.4
Western Samar	84.9	12.6	2.5	10.4	89.6
Western Mindanao	65.6	24.7	9.7	7.6	92.4
Zamboanga del Norte	89.7	8.9	1.4	7.2	92.8
Zamboanga del Sur	65.1	26.1	8.8	7.4	92.6
Sulu	42.3	36.9	20.8	9.0	91.0
Northern Mindanao	65.2	25.8	9.0	13.6	86.4
Misamis Occidental	79.0	14.4	6.6	10.3	89.7
Misamis Oriental	65.9	27.3	6.8	18.0	82.0
Lanao del Norte	47.4	35.6	17.0	3.3	96.7
Lanao del Sur	46.9	43.5	9.6	31.4	68.6
Bukidnon	76.6	19.1	4.3	3.9	96.1
Surigao del Norte	96.9	2.5	0.5	18.4	81.6
Surigao del Sur	72.6	16.2	11.2	17.2	82.8
Agusan del Norte	50.9	36.3	12.8	22.9	77.1
Agusan del Sur	64.8	21.3	13.9	16.3	83.7
Southern Mindanao	53.8	28.3	17.9	11.1	88.9
Cotabato	52.6	31.0	16.4	3.9	96.1
South Cotabato	57.5	22.5	20.0	25.6	73.4
Davao Oriental	41.0	45.0	14.0	5.4	94.6
Davao del Norte	54.5	25.0	20.5	7.9	92.1
Davao del Sur	57.3	24.2	18.5	14.9	85.1

Table 2. Regional differences in characteristics of households, 1968-1973 (National Demographic Survey) (333).

		Phil.	Region I	II	III	IV	V	VI	VII	VIII	IX	X
No. of rooms												
1968	1-2	45.7	37.0	49.0	28.0	43.1	36.1	62.3	38.4	48.6	45.5	60.9
	3-4	43.0	46.9	40.8	59.6	44.0	53.6	31.4	89.9	39.8	42.3	30.0
	5 and over	11.3	16.1	10.2	12.4	12.9	10.3	6.3	11.7	11.6	12.2	9.1
1973	1-2	55.7	36.3	67.4	65.3	58.6	64.6	49.1	45.4	49.7	53.6	62.9
	3-4	35.3	49.4	24.0	30.6	32.2	28.1	31.9	45.9	39.0	37.3	30.8
	5 and over	9.0	14.3	8.6	4.1	9.2	7.3	9.0	8.7	11.3	9.1	6.3
Type of toilet												
1968	Flush	11.2	48.2	11.5	0.9	7.9	11.2	4.6	3.5	11.0	5.6	3.7
	Antipolo	17.2	31.6	0.7	13.4	21.2	19.6	9.3	14.0	22.3	22.8	5.2
	Open pit, pail, public	38.4	15.2	74.6	70.8	46.8	46.7	27.5	34.9	17.3	34.5	52.6
	Surface, none	33.2	5.0	13.2	11.9	24.1	22.5	58.6	47.6	49.3	37.1	38.5
1971	Flush	17.2	55.0	11.9	2.4	15.4	24.4	17.3	5.7	18.0	9.8	5.3
	Antipolo	27.2	31.9	32.5	26.4	23.6	20.2	15.3	16.6	43.5	22.6	32.8
	Open pit, pail, public	38.5	12.0	49.4	58.8	45.8	32.5	40.8	48.0	16.8	59.6	47.1
Type of cooking fuel												
1968	Electricity	2.7	19.0	2.1	0.0	0.6	2.9	0.6	0.2	0.5	1.0	0.5
	Gas	4.0	17.7	2.7	0.5	4.3	5.3	2.0	1.2	1.5	1.2	2.6
	Kerosene	9.6	49.0	2.0	1.6	7.6	17.2	4.2	2.8	1.9	1.1	3.8
	Wood and other	83.7	14.3	93.2	97.9	87.5	74.6	93.2	95.8	96.1	96.7	93.1
1973	Electricity	2.1	11.3	2.3	0.0	2.5	3.4	0.1	0.5	0.3	0.4	0.3
	Gas	16.7	55.8	10.9	4.4	22.7	30.0	9.6	5.8	7.5	3.4	7.6
	Kerosene	7.5	27.1	4.4	6.4	10.2	6.8	6.0	4.7	3.9	5.0	2.3
	Wood and other	73.7	5.8	82.4	89.2	64.6	59.8	84.4	89.0	88.3	91.2	89.8
Type of lighting												
1968	Electricity	23.8	96.2	9.4	4.4	28.1	38.8	8.3	9.7	9.0	10.1	9.5
	Kerosene	74.7	3.6	82.9	95.9	71.0	60.6	91.1	90.2	88.0	89.8	88.2
	Oil and other	1.5	0.2	7.7	0.7	0.9	0.6	0.6	0.1	3.0	0.1	2.3
1973	Electricity	28.3	95.8	11.5	8.1	37.6	40.5	16.6	11.0	15.3	14.1	16.4
	Kerosene	70.1	3.7	80.7	91.1	61.7	57.9	83.4	86.2	83.8	82.3	82.9
	Oil and other	1.4	0.1	7.8	0.1	0.7	1.3	0.0	2.5	0.5	3.2	0.3
	No information	0.3	0.4	0.0	0.7	0.0	0.3	0.0	0.3	0.4	0.4	0.4
Source of drinking water												
1968	Private waterworks	10.2	63.0	5.5	1.0	5.6	6.1	6.2	2.0	6.5	3.9	1.3
	Private pump or artesian	16.9	7.2	11.5	33.8	51.0	19.6	7.2	10.6	2.5	9.0	17.1
	Private open well	23.0	0.0	39.3	21.5	7.3	12.2	29.4	42.2	33.4	14.3	32.0
	Public faucet	14.1	19.2	13.4	1.3	7.6	20.5	24.4	12.0	16.7	11.1	7.8
	Public pump or artesian	13.8	2.8	10.5	23.5	23.5	26.9	7.3	9.2	13.8	18.7	2.4
	Spring, river, stream, rain,etc	22.0	7.8	19.8	18.9	5.0	14.7	25.5	24.0	27.1	43.0	39.4
1973	Private waterworks	13.7	75.4	3.8	1.0	7.6	10.7	11.8	6.9	6.7	7.7	8.0
	Private pump or artesian	25.5	8.4	43.6	32.6	51.1	33.9	18.7	17.9	13.3	13.0	23.0
	Private open well	16.2	1.0	11.3	38.9	13.0	7.3	27.6	39.8	15.1	12.7	12.6
	Public faucet	12.0	8.9	2.5	6.3	10.2	19.7	11.4	7.5	18.2	20.1	4.9
	Public pump or artesian	12.8	5.6	10.2	19.6	13.6	16.9	14.2	11.3	22.2	8.2	4.3
	Spring, river, stream, rain,etc	19.8	0.7	28.6	1.0	4.5	11.5	16.3	16.6	24.5	38.3	51.2

1968 included 7,237 households; 1973 included 8,434 households.

Table 3. Items found in households (%) by region, 1973, National Demographic Survey.

	Phil.	Region I	II	III	IV	V	VI	VII	VIII	IX	X
Wall material											
Hollow blocks	15.7	49.2	16.0	7.0	25.9	25.0	11.6	8.1	4.4	3.4	3.5
Wood	47.2	49.9	41.1	40.2	40.2	43.7	45.3	23.9	54.0	72.3	56.4
Sawali, bamboo	20.7	0.1	32.7	34.1	18.5	17.0	9.5	39.8	23.0	14.7	24.1
Nipa, other thatch	14.8	0.0	5.3	12.8	14.5	13.8	33.2	27.1	15.5	7.5	13.3
Scrap materials, other	1.5	0.6	4.8	5.2	0.9	0.2	0.4	0.9	2.9	1.1	1.5
No information	0.2	0.2	0.1	0.7	0.0	0.3	0.0	0.2	0.2	0.1	0.2
Floor material											
Linoleum, tiles	2.1	4.0	0.6	0.3	1.7	7.7	0.4	1.1	1.1	0.4	0.0
Wood	44.4	52.1	51.2	54.3	33.6	30.9	48.4	19.7	49.9	67.8	55.4
Cement	14.1	42.8	14.9	7.1	19.0	16.4	15.3	8.2	8.3	4.4	5.3
Bamboo	37.2	0.1	32.1	36.8	40.3	41.4	30.6	70.3	39.6	26.7	38.1
Earth, other	2.1	0.8	0.4	1.5	5.1	3.4	5.3	0.4	1.0	0.6	1.0
No information	0.2	0.2	0.8	0.0	0.3	0.2	0.0	0.3	0.1	0.1	0.2
Stool, bench or papag	71.5	64.3	67.7	84.8	75.0	74.7	75.3	71.4	73.5	64.9	66.4
Chair with back	50.3	78.0	51.3	55.0	60.9	59.7	41.7	41.1	40.9	37.9	39.1
Sala set	35.6	67.3	23.1	26.0	49.1	45.1	24.1	28.9	27.1	34.2	20.4
Dining table with long legs	64.7	79.1	56.1	59.6	70.8	71.6	60.9	62.8	60.3	62.4	56.1
Sewing machine	27.6	43.2	26.0	24.0	33.7	31.8	22.6	24.4	18.8	24.3	25.1
Aparador or closet	52.0	80.7	51.9	54.3	85.6	72.1	33.2	47.1	29.4	31.8	28.0
Bed	36.0	66.9	39.2	33.0	28.7	36.3	31.6	46.1	29.2	36.4	24.2
Clock or watch	46.0	75.4	46.2	24.1	57.1	51.2	38.1	45.4	32.4	38.4	40.4
Radio	59.9	77.1	54.9	48.6	71.9	62.1	45.1	59.6	49.4	60.9	58.9
Motor vehicle	5.7	13.0	3.5	3.9	6.6	7.0	3.4	3.6	3.9	7.4	3.5

Table 4. Percentage distribution of total family expenditure group, urban, rural, Manila and suburbs: 1961, 1965, 1971 (45, 46).

Expenditure group	Philippines			Rural			Total urban			Manila & suburbs		
	1961	1965	1971	1961	1965	1971	1961	1965	1971	1961	1965	1971
Food	53.8	53.8	53.7	59.5	60.6	59.3	48.4	46.1	47.1	42.3	40.4	41.5
Housing	8.3	9.1	9.4	5.6	5.0	6.8	10.9	13.7	12.5	15.4	20.1	18.0
Clothing and other wear	7.0	6.5	6.2	7.7	7.0	6.2	6.4	6.0	6.3	5.8	4.8	5.9
Health education & transportation	7.1	7.8	8.4	5.6	6.2	6.8	8.8	9.7	10.4	9.3	10.0	11.1
Miscellaneous	23.8	22.9	22.3	21.6	21.2	20.9	25.5	24.5	23.7	27.2	24.7	23.5

Table 5. Protein and calorie deficiencies in the Philippines (252).

Region	Proteins	Calories	Proteins	Calories
	Percent of Recommended Dietary Allowances		Percent of Households with Less than 70 Percent of Recommended Dietary Allowance	
Manila and suburbs	92	90	20	30
Southern Tagalog	81	79	30	28
Ilocos-Mt. Province	97	88	15	16
Cagayan Valley-Batanes	87	81	21	26
Eastern Visayas	80	68	24	47
Western Visayas	88	75	20	38
Southwestern Mindanao	86	74	16	40

Table 6. Proportion of families by highest grade completed by the household head, by income class, by urban, rural, 1971 (45. 322).

Highest grade completed	Philippines			Manila & suburbs			Other urban areas			Rural areas		
	Total	P1,999 & below	P2,000 to P3,999	Total	P1,999 & below	P2,000 to P3,999	Total	P1,999 & below	P2,000 to P3,999	Total	P1,999 & below	P2,000 to P3,999
Total families	6,347,000	2,617,000	192,000	525,000	21,000	161,000	766,000	307,000	459,000	434,000	2,373,000	1,303,000
Elementary	57.2	69.9	58.0	25.9	38.1	32.5	41.7	61.6	45.5	65.8	68.4	65.5
Grades 1-3	17.1	23.5	15.4	3.8	4.8	4.2	9.8	16.6	9.2	20.8	23.6	19.0
4-7	40.1	46.4	42.6	22.1	33.3	28.3	31.9	45.0	36.3	45.0	45.8	46.5
High school	18.6	10.8	22.2	36.0	47.6	47.3	27.8	20.9	32.7	13.6	8.5	15.3
1st and 2nd year	7.3	6.0	8.7	10.3	14.3	17.9	9.3	12.0	10.9	6.3	5.1	6.7
3rd and 4th year	11.3	4.8	13.5	25.7	33.3	29.4	18.4	8.9	21.8	7.3	3.4	8.6
College	12.1	1.8	9.0	35.8	9.5	18.8	25.1	5.9	17.9	5.2	1.1	4.8
1st to 3rd year	4.7	1.3	4.7	14.6	4.7	12.6	8.7	3.4	8.3	2.1	0.9	2.3
4th year +	7.4	0.5	4.3	21.2	4.8	6.2	16.4	2.5	9.6	3.1	0.2	2.5
No grade completed	12.1	17.5	10.8	2.3	4.8	1.4	5.4	11.6	3.9	15.4	22.0	14.4

Table 7. Employed persons (total = 13 824 000) by major industry group and class of worker, November, 1974 (245).

Major industry group	Percent of total employed	Wage and salary workers	Self-employed workers	Unpaid family workers
Agriculture, forestry, hunting and fishing	55.6	15.6	48.4	36.0
Mining and quarrying	0.3	82.6	15.4	2.0
Manufacturing	10.3	64.4	27.5	8.1
Electricity, gas, water and sanitary services	0.3	97.2	2.8	-
Construction	2.9	94.0	6.0	-
Commerce	11.2	29.6	55.8	14.6
Transport, storage and communication	3.6	78.6	19.9	1.5
Government, community, business and recreational services	8.9	94.8	4.8	0.4
Domestic services	5.0	99.3	0.6	0.1
Personal services other than domestic	1.8	54.5	36.1	9.4
Industry not reported	0.2	-	-	-
Total both sexes	100.0	39.1	38.0	22.9

Table 8. Employment distribution in the services sector by organized and unorganized subsector. (1961, 1967 and 1971 percentages) (184, p. 181).

Services sector	1961		1967		1971	
	Organized	Unorganized	Organized	Unorganized	Organized	Unorganized
Commerce	15.3	84.7	20.8	79.2	18.6	81.4
Transport, storage and communication	38.2	61.8	26.1	73.9	22.5	77.5
Government, community, business and recreation	94.3	5.7	94.0	6.0	93.7	6.3
Net of government	83.3	16.7	85.5	14.5	88.1	11.9
Personal services	23.4	76.6	25.3	74.7	27.1	72.9
Total	35.8	64.2	37.9	62.1	38.6	61.4

Table 9. Percentage of persons 15 years and over who gave and received help from friends, relatives, and neighbours (1975) Sample Size - 11,570 urban and 16,912 rural (332).

	Urban	Rural		Urban	Rural
1. Have extended help to friends, relatives and neighbors in the past.			1. Have asked for help from friends, relatives and neighbors in the past.		
Yes	54.6	61.1	Yes	40.6	48.8
No	43.4	35.9	No	57.9	49.0
Not applicable and no info.	2.0	3.0	No info.	1.5	2.2
2. Kind of help extended to friends, relatives and neighbors:			2. Kind of help asked from friends, relatives and neighbors:		
a) Mutual help (bayanihan,etc.)	2.7	6.3	a) Mutual help (bayanihan, etc.)	2.0	5.1
b) Assistance in cash or kind	69.5	52.4	b) Assistance in cash or kind	63.4	49.1
c) Service (Marketing, baby sitting, etc.)	19.9	34.1	c) Service (Marketing, baby sitting, etc.)	20.7	35.9
d) Other	7.9	7.2	d) Other	13.9	9.9
3. Received something for help given to friends, relatives and neighbors.			3. Gave something for help asked from friends, relatives and neighbors.		
Yes	44.1	55.6	Yes	61.0	67.2
No	51.2	39.3	No	34.0	28.0
No. info.	4.7	5.1	No. info.	5.0	4.8

Table 10. Mobility from father's occupation to occupation of son in 1973 (married male 25 to 64 years old) (outflow percentages)* (103).

Father's occupation at age 40	Son's occupation in 1973							
	1	2	3	4	5	6	7	8
1. Professional, technical, administrative, executive, managerial and related workers	37.7	9.0	13.9	6.8	8.3	10.0	11.2	3.1
2. Clerical workers	24.0	14.1	7.3	14.0	12.7	18.8	7.3	1.9
3. Sales workers	13.0	2.8	42.5	5.4	14.3	8.4	8.7	5.0
4. Workers in transport and communication occupations	10.1	5.4	10.9	27.7	27.3	9.6	7.1	2.0
5. Craftsmen, production process workers	5.5	2.6	6.2	12.2	42.0	7.6	13.9	9.9
6. Miners, quarrymen, sports and service workers	10.0	5.1	10.6	9.4	18.0	23.6	14.3	9.0
7. Farmers and farm managers	3.0	1.7	3.4	3.8	8.8	5.7	67.0	6.6
8. Farm workers, fishermen, hunters, loggers, etc.	1.5	1.4	3.9	3.7	8.6	5.8	15.5	59.6
Total	5.5	2.4	6.3	5.5	12.3	7.2	47.9	12.9

*This table is to be read horizontally.

Table 11. Mobility from father's occupation to occupation of son in 1973 (married male 25 to 64 years old) (inflow percentages)* (103).

Father's occupation at age 40	Son's occupation in 1973							
	1	2	3	4	5	6	7	8
1. Professional, technical, administrative, executive, managerial, and related workers	25.8	14.0	8.3	4.6	2.6	5.2	0.9	0.9
2. Clerical workers	5.6	7.4	1.5	3.2	1.3	3.3	0.2	0.2
3. Sales workers	10.3	5.1	29.5	4.3	5.1	5.1	0.8	1.7
4. Workers in transport and communication	3.9	4.7	3.6	10.5	4.7	2.8	0.3	0.3
5. Craftsmen, production process workers	7.3	7.8	7.2	16.1	24.9	7.7	2.1	5.6
6. Miners, quarrymen, sports and service workers	8.6	9.8	8.0	8.1	7.0	15.5	1.4	3.3
7. Farmers and farm managers	35.4	44.5	34.5	45.2	46.2	50.9	90.5	33.4
8. Farm workers, fishermen, hunters, loggers, etc.	3.1	6.8	7.4	8.0	8.3	9.5	3.8	54.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

*This table is to be read vertically.

Table 12. Attitudes of out-of-school youths and their parents toward different aspects of life and society (Laguna 1971) (284).

	Out-of-school youth N = 456	Parents
	Percent	
1. Our present condition or success in life is largely determined by fate or luck.		
Agree	83	89
Disagree	10	5
Undecided	7	6
2. There is not much hope in trying to improve my present condition in life.		
Agree	11	13
Disagree	81	81
Undecided	8	6
3. Life is just a series of worries and difficulties.		
Agree	23	33
Disagree	57	54
Undecided	20	13
4. The future is too uncertain to plan on anything worthwhile.		
Agree	19	33
Disagree	57	50
Undecided	24	17
5. A young man of today cannot expect much of the future.		
Agree	9	13
Disagree	77	72
Undecided	14	15
6. Poverty is chiefly a result of social and economic injustices.		
Agree	52	66
Disagree	27	18
Undecided	21	16
7. The government is not really concerned with the welfare of the people in the barrio.		
Agree	8	7
Disagree	86	87
Undecided	6	6

Table 13. IPC/PSSC national survey respondents classified by their perception of present socioeconomic conditions in their communities as compared with those 5 years ago and with those 10 years hence (276).

	Present compared to 5 years ago			Present compared to 10 years hence		
	More (Better)	Same	Less (Worse)	More (Better)	Same	Less (Worse)
			Percent			
1. Money to spend	42	8	50	49	18	34
2. Available jobs	38	12	50	51	20	29
3. Prices	42	3	54	6	7	87
4. Contentment of people	38	13	49	32	23	45
5. Chances for advancement	42	12	47	54	20	27
6. Willingness of people to work	56	11	33	68	18	14
7. Respect for old age	48	12	40	34	23	43
8. Helpfulness of people	48	16	36	39	28	33
9. Concern for getting along well with others	43	17	40	41	30	29
10. Social equality of people	28	17	55	37	29	34
11. Participation in community affairs	45	11	44	60	20	19
12. Better houses	44	15	41	62	21	16
13. Opportunities for entertainment	38	9	53	50	19	30
14. Number of sick people	42	13	45	40	22	38
15. Places for sick people (hospitals and clinics)	42	11	47	64	18	18

Table 14. Mean ladder ratings (0-11) given by IPC/PSSC national survey respondents to their own or the national situation, by time period and by respondents' place of residence (November 1973-April 1974) (276).

Situation and time period being evaluated	Urban		Urban		Urban	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
a. Respondent's own life situation*						
Five years ago	4.6	2.0	4.0	2.2	4.3	2.2
Present	5.0	2.1	4.2	2.2	4.7	2.1
Five years hence	6.1	2.4	5.1	2.8	5.7	2.6
b. The national situation**						
Ten years ago	4.9	2.2	5.1	2.2	5.0	2.2
Present	5.8	2.0	5.3	2.3	5.8	2.2
Ten years hence	7.2	2.5	6.7	2.7	7.0	2.6

*A self-anchoring ladder scale was used which was presented in the following manner:

"Here is a picture of a ladder with steps from 0 to 10. Let us say that the top of the ladder (Step 10) represents the best possible life you can imagine and the bottom step (Step 0) represents the worst possible life for you. Then the higher in the ladder you are, the better your life is. And the lower you are the worse your life is."

A. Where on the ladder do you feel you personally stand at the present time?

B. Where on the ladder would you say you stood five years ago?

C. And where do you think you will be on the ladder five years from now?

**A comparable ladder was presented for the national situation.

Table 15. Farmers' assessment of their own and their barrio's socioeconomic condition, past, present, and future (6034 farmers from 11 regions, Jan.-Dec. 1972) (6).

Assessment	Farmers' assessment of present socio-economic condition compared to that of 3 years ago	Forecast of their socio-economic conditions 5 years from 1972	Assessment of present barrio's socio-economic condition compared to that of 3 years ago	Assessment of barrio's socio-economic condition 5 years from 1972
Lower	43	8	13	4
Same	27	19	22	12
Higher	28	43	59	60
Don't know	2	30	6	24
Total	100	100	100	100

Table 16. Total population (000's) 10 years old and over and total in the labour force, by urban, rural and by sex, October 1964 and August 1975 (49).

Total population	October, 1965				August, 1975				Percent increase in size from 1965-1975		
10 years old and over	Both sexes	Male	Female	Percent female	Both sexes	Male	Female	Percent female	Both sexes	Male	Female
	(in thousands)										
Philippines	20,261	10,043	10,219	50.4	29,751	14,690	15,061	50.6	46.8	46.3	47.4
Urban	6,496	3,087	3,409	52.5	10,168	4,696	5,473	53.8	56.5	52.1	60.5
Rural	13,765	6,956	6,809	49.4	19,583	9,994	9,589	49.0	42.3	43.7	40.8
Percent rural in population 10 years old and over	67.9	69.3	66.6		65.8	68.0	63.7				
Total population 10 years old and over in the labor force	10,764	7,156	3,608	33.5	15,161	9,993	5,168	34.1	40.8	39.6	43.2
Urban	3,313	2,033	1,280	38.6	4,822	2,782	2,040	42.3	45.5	36.8	59.4
Rural	7,451	5,125	2,328	31.2	10,339	7,211	3,128	30.3	38.8	40.7	34.4
Percent of labor force in rural sector	69.2	71.6	64.5		68.2	72.2	60.5				
Total population 10 years old and over not in the labor force	9,492	2,883	6,608	69.6	14,591	4,697	9,894	67.8	53.7	62.9	49.7
Urban	3,183	1,053	2,129	66.9	5,346	1,914	3,433	64.2	68.0	81.8	61.2
Rural	6,309	1,830	4,479	71.0	9,244	2,783	6,461	69.9	46.5	52.1	44.3
Percent of non-participants in the labor force in rural sector	66.5	63.5	67.8		63.4	59.3	65.3				

Table 17. Labour force participation rates by sex, age group, Philippines, urban and rural, October 1965, August 1971, November 1972, November 1973, August 1974 and 1975 (49).

	Philippines (Both sexes)				
	Total	10-24 years	25-44 years	25-64 years	65+ years
1965	53.1	38.4	69.6	69.5	38.5
1967	54.5	37.5	73.9	71.7	40.6
1971	49.5	33.0	68.4	66.0	33.7
1972	48.4	32.4	67.3	65.7	34.5
1973	50.4	35.4	69.1	65.6	34.9
1974	49.4	33.8	67.7	66.0	38.0
1975	51.0	35.2	69.6	67.4	36.9

	Male					Female				
	Total	10-24 years	25-44 years	45-64 years	65+ years	Total	10-24 years	25-44 years	45-64 years	65+ years
					Urban					
1965	65.9	39.0	96.4	92.5	43.9	37.5	32.8	46.7	39.5	15.8
1967	62.0	32.8	95.9	92.0	48.6	35.8	28.7	47.6	39.9	15.0
1971	61.1	31.4	95.0	89.5	37.4	35.4	30.2	46.0	35.9	12.2
1972	58.6	29.3	95.1	88.9	36.2	34.2	27.7	45.7	37.4	16.6
1973	60.2	32.0	95.2	86.5	37.5	36.6	30.8	49.1	38.3	9.9
1974	59.3	31.1	93.9	86.1	41.2	35.5	29.1	48.4	37.0	15.4
1975	59.2	30.5	94.9	87.7	34.5	37.3	29.9	51.8	39.8	12.2
					Rural					
1965	73.7	51.8	97.7	96.0	62.1	34.2	27.3	40.7	44.8	23.4
1967	72.8	49.2	98.3	96.7	65.1	42.4	32.4	53.6	52.1	24.2
1971	70.0	45.5	97.1	94.4	59.7	30.4	22.4	39.6	39.7	17.2
1972	70.2	47.4	97.7	94.3	60.3	28.7	20.5	37.1	39.8	15.1
1973	71.9	50.8	97.9	94.0	60.3	31.1	23.2	39.6	40.8	19.1
1974	71.0	48.2	97.6	95.1	63.7	29.7	22.0	36.6	40.8	23.6
1975	75.2	50.0	97.7	95.7	65.9	32.6	24.5	40.4	43.2	24.9

Table 18. Persons not wanting work by reason for not wanting work, by sex, October 1959 to August 1974 (49, 50).

Reasons for not wanting work	1959	1960	1961	1962	1963	1965	1966	1968	Aug. 1971	Nov. 1973	Aug. 1974	Nov. 1974
Both sexes (000)	7,200	7,682	7,567	7,507	8,021	9,192	9,299	11,291	12,830	14,205	14,483	14,404
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Retired or too old	5.3	5.4	4.9	4.7	5.1	3.6	4.9	0.8	4.3	3.5	3.5	3.4
Going to school	43.5	44.4	47.3	49.0	51.1	50.2	52.8	49.9	51.1	48.8	49.1	49.0
Housekeeping	43.9	43.6	41.7	40.5	39.0	40.0	37.7	34.8	37.7	40.4	40.2	40.4
Permanent illness or disability	2.1	2.6	2.1	2.1	1.7	1.8	2.1	2.4	1.8	2.3	2.1	1.9
Too young	-	1.8	1.7	1.7	1.2	1.9	1.8	4.9	1.4	1.6	1.6	1.9
Others	5.1	2.1	2.3	2.0	1.8	2.4	0.7	7.3	3.7	3.4	3.5	3.4
Male (000)	2,166	2,324	2,361	2,354	2,593	2,797	2,973	3,782	4,125	4,521	4,671	4,606
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Retired or too old	7.4	7.8	6.9	6.9	7.3	4.9	6.4	1.5	5.6	5.7	5.5	5.1
Going to school	75.3	76.2	79.5	80.4	81.9	81.5	83.8	75.9	78.1	76.7	77.2	77.6
Housekeeping	4.0	3.6	2.3	2.9	2.5	2.4	2.1	1.2	1.9	2.4	2.2	2.6
Permanent illness or disability	4.2	4.8	3.7	3.8	2.9	3.7	3.7	3.7	3.8	4.4	4.3	3.6
Too young	-	3.6	3.6	3.0	2.3	3.4	3.1	8.6	2.7	3.4	3.2	3.7
Others	9.1	4.0	4.0	2.9	2.9	4.1	0.8	9.1	7.9	7.4	7.6	7.4
Female (000)	5,033	5,358	5,215	5,153	5,428	6,395	6,326	7,508	8,705	9,684	9,812	9,798
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Retired or too old	4.5	4.3	3.9	3.7	4.1	3.1	4.2	0.5	3.6	2.5	2.5	2.7
Going to school	29.8	30.6	32.8	34.7	36.3	36.6	38.2	36.7	38.8	35.7	35.7	35.6
Housekeeping	61.1	61.0	59.5	57.7	56.4	56.5	54.5	51.8	54.6	58.1	58.2	58.1
Permanent illness or disability	1.2	1.7	1.4	1.3	1.2	1.0	1.3	1.5	1.0	1.2	1.1	1.1
Too young	-	1.1	0.9	1.1	0.7	1.2	1.2	3.0	0.7	0.9	0.9	1.0
Others	3.4	1.3	1.5	1.6	1.2	1.7	0.7	6.4	1.3	1.6	1.6	1.5

Table 19. Persons in the labour force by marital status, sex, urban and rural, October 1965, August 1971, November 1973 and August 1975 (49).

	Male					Female				
	Total	Never married	Married	Widowed	Divorced or separated	Total	Never married	Married	Widowed	Divorced or separated
					Philippines					
1965	100.0	33.2	64.5	2.0	0.2	100.0	44.5	47.9	6.6	0.9
1971	100.0	31.0	66.8	1.7	0.4	100.0	44.1	48.1	6.7	1.0
1973	100.0	34.6	63.3	1.6	0.4	100.0	44.8	47.0	6.6	1.6
1974	100.0	33.6	64.2	1.7	0.5	100.0	44.4	47.0	7.3	1.3
1975	100.0	34.5	63.0	2.0	0.5	100.0	44.0	46.8	7.7	1.5
					Urban					
1965	100.0	32.9	64.9	1.9	0.3	100.0	53.5	39.6	5.6	1.3
1971	100.0	30.0	68.0	1.7	0.3	100.0	53.6	39.4	5.9	1.1
1973	100.0	31.7	66.9	1.1	0.2	100.0	55.4	38.0	5.1	1.4
1974	100.0	32.1	66.0	1.4	0.5	100.0	54.7	37.7	6.3	1.4
1975	100.0	32.0	66.3	1.2	0.5	100.0	53.0	37.9	7.3	1.8
					Rural					
1965	100.0	33.4	64.3	2.1	0.2	100.0	39.6	52.5	7.2	0.7
1971	100.0	31.5	66.4	1.7	0.5	100.0	38.3	53.4	7.2	1.0
1973	100.0	35.8	61.9	1.8	0.4	100.0	37.9	52.8	7.6	1.7
1974	100.0	34.2	63.5	1.8	0.5	100.0	37.5	53.3	8.0	1.2
1975	100.0	35.4	61.8	2.3	0.5	100.0	38.1	52.7	8.0	1.2

Table 20. Labour force by employment status, sex, urban and rural, 1965-1974, May series (in percent) (49).

	Male									Female								
	1965	1966	1967	1968	1969	1971	1972	1973	1974	1965	1966	1967	1968	1969	1971	1972	1973	1974
								Urban										
Employed (fully and partially)	89.3	90.1	87.6	87.9	91.4	91.3	87.3	91.2	91.3	87.1	88.0	85.9	86.4	89.9	90.5	88.1	93.2	93.7
Unemployed	10.7	9.9	12.4	12.1	8.6	8.7	12.7	8.8	8.7	12.9	12.0	14.1	13.6	10.1	9.5	11.9	6.8	6.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
								Rural										
Employed (fully and partially)	96.3	97.1	95.8	96.0	96.5	97.7	96.6	97.8	97.3	86.6	93.2	90.1	91.5	89.6	95.3	92.6	95.3	94.6
Unemployed	3.7	2.9	4.2	4.0	3.5	2.3	3.4	2.2	2.7	3.4	6.8	9.9	8.5	10.4	4.7	7.4	4.7	5.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 21. Employed persons 10 years old and over by class of worker and sex, 1962-1974 (49).

	Oct. 1962	Oct. 1967	Aug. 1971	Nov. 1973	Nov. 1974	Aug. 1975
Both sexes						
Total employed (000)	9,578	10,859	12,212	13,854	13,796	14,517
			In percent			
Wage and salary workers	34.8	37.4	40.9	38.7	39.0	40.2
In private business	84.6	83.6	78.2	80.6	80.2	79.8
In government	15.4	16.4	21.8	19.4	19.8	20.2
Self-employed workers	40.3	39.8	39.6	37.1	38.1	37.0
Unpaid family workers	24.9	22.8	19.5	24.2	22.7	22.8
	100.0	100.0	100.0	100.0	100.0	100.0
Males						
Total employed	6,208	7,060	8,237	9,277	9,367	9,612
			In percent			
Wage and salary workers	34.0	36.6	39.8	35.9	36.3	37.3
In private business	83.6	83.5	79.2	81.3	82.0	81.0
In government	16.4	16.5	20.8	18.7	18.0	19.0
Self-employed workers	47.9	46.8	45.1	44.4	45.2	43.7
Unpaid family workers	18.1	16.6	15.1	19.7	18.5	19.0
	100.0	100.0	100.0	100.0	100.0	100.0
Females						
Total employed	3,368	3,799	3,976	4,578	4,429	4,905
			In percent			
Wage and salary workers	36.2	38.8	43.1	44.4	45.3	45.9
In private business	86.4	83.7	76.4	78.9	77.1	77.8
In government	13.6	16.3	23.6	21.1	22.9	22.2
Self-employed workers	26.3	26.6	28.4	22.1	23.1	23.7
Unpaid family workers	37.5	34.6	28.5	33.5	31.6	30.4
	100.0	100.0	100.0	100.0	100.0	100.0

Table 22. Employed persons by major occupation group and by sex, October 1956 to August 1975 (in thousands, except percent) (50).

Major occupation group and sex	1956	1957	1958	1959	1960	1961	1962	1963	1965	1966	1967	1968	Aug. 1971	Nov. 1971	Aug. 1972	Nov. 1973	Aug. 1974	Aug. 1975
Both sexes (total)	7,702	8,199	8,329	8,575	8,539	9,095	9,603	9,764	10,101	10,936	10,867	10,471	12,228	12,543	12,598	13,865	13,666	14,517
Percent of total																		
Professional, technical & related workers	2.8	2.7	3.0	3.0	2.8	3.4	3.0	3.2	3.7	4.0	4.1	4.9	5.7	5.6	4.8	5.0	5.3	5.5
Proprietors, managers, administrators and officials	4.6	3.8	3.0	3.7	3.8	3.7	3.7	3.6	4.3	3.8	3.6	4.4	1.2	1.4	1.1	0.9	1.1	1.0
Clerical, office & related workers	2.0	2.1	2.1	2.3	2.5	3.0	2.6	2.9	3.5	3.3	3.3	3.7	4.0	3.6	3.4	3.7	3.7	3.8
Salesmen and related workers	5.9	5.9	6.1	5.9	5.2	5.9	6.0	6.6	6.7	6.6	4.5	6.4	11.7	11.3	10.7	9.8	9.8	9.7
Farmers, farm laborers, fishermen, hunters, lumbermen and related workers	58.8	60.5	63.1	61.5	61.0	60.5	61.3	58.9	56.2	57.1	58.0	53.5	48.3	50.1	53.7	55.6	54.8	53.3
Workers in mine, quarry & related occupations	0.4	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.1	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2
Workers in operating transport occupations	1.9	1.9	1.9	2.0	2.2	2.0	2.0	2.6	2.7	2.6	2.6	2.8	4.0	4.1	4.1	3.6	3.7	3.4
Craftsmen, factory operatives and related workers	13.9	13.9	12.3	13.0	13.3	12.1	12.0	12.8	12.6	12.7	12.4	13.6	13.1	12.6	11.4	10.8	11.0	12.1
Manual workers and laborers, n.e.c.	2.2	1.9	1.4	1.7	1.9	1.8	1.7	2.0	1.5	1.6	1.5	1.8	2.4	1.8	1.8	1.8	2.1	2.2
Service and related workers	7.0	6.8	6.4	6.4	6.6	7.0	7.0	6.9	8.3	7.9	7.8	8.6	9.3	9.1	8.5	8.2	8.0	8.6
Occupation not reported	0.5	0.3	0.4	0.3	0.5	0.3	0.3	0.2	0.4	0.2	0.1	0.2	0.07	0.2	0.1	0.2	0.3	0.2
Percent (total)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Male (total)	4,946	5,352	5,506	5,656	5,721	5,932	6,219	6,272	6,805	7,195	7,060	7,061	8,247	8,463	8,564	9,282	9,254	9,612
Percent of total																		
Professional, technical & related workers	2.2	2.0	2.2	2.2	2.0	2.3	1.9	2.2	2.4	2.6	2.8	3.1	3.4	3.4	2.8	3.1	3.1	3.5
Proprietors, managers, administrators and officials	3.2	2.6	2.3	2.6	2.6	2.7	2.6	2.5	2.8	2.6	2.4	2.9	1.4	1.6	1.2	1.1	1.3	1.2
Clerical, office & related workers	2.5	2.5	2.4	2.7	2.9	3.5	3.2	3.5	3.7	3.7	3.6	3.7	3.8	3.3	3.0	3.0	2.9	3.0
Salesmen and related workers	3.5	3.3	3.5	3.1	3.0	3.2	3.6	3.5	3.9	4.0	3.6	3.5	6.9	6.7	6.1	6.1	6.0	5.7
Farmers, farm laborers, fishermen, hunters, lumbermen and related workers	68.2	70.0	71.0	70.5	70.1	69.4	69.2	67.3	65.3	65.7	66.5	62.8	57.5	59.0	62.0	64.0	63.5	62.7
Workers in mine, quarry and related occupations	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.3	0.2	0.3	0.4	0.4	0.3	0.4	0.3	0.3	0.2	0.3
Workers in operating transport occupation	2.9	2.8	2.9	3.0	3.3	3.1	3.1	4.0	4.0	3.9	4.0	4.1	5.9	6.0	6.0	5.3	5.3	5.0
Craftsmen, factory operatives & related workers	9.4	9.3	8.8	9.1	9.1	8.5	9.0	9.7	10.7	10.6	10.2	12.0	12.1	11.7	10.4	10.2	10.3	10.8
Manual workers and laborers, n.e.c.	3.3	2.9	2.1	2.5	2.8	2.7	2.6	3.1	2.2	2.4	2.2	2.5	3.5	2.7	2.5	2.6	3.0	3.3
Service and related workers	4.0	3.9	4.0	3.6	3.4	3.9	4.2	3.9	4.5	4.3	4.3	4.8	5.3	5.1	4.6	4.0	4.1	4.4
Occupation not reported	0.3	0.2	0.3	0.2	0.4	0.2	0.2	0.1	0.3	0.1	4.3	0.2	0.04	0.2	0.1	0.2	0.2	0.2
Percent (total)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Female (total)	2,756	2,847	2,823	2,920	2,818	3,163	3,384	3,492	3,296	3,742	3,807	3,410	3,981	4,080	4,035	4,582	4,412	4,905
Percent of total																		
Professional, technical & related workers	3.9	4.0	4.4	4.4	4.5	5.5	5.0	5.0	6.4	6.8	6.3	8.5	10.4	10.1	9.1	9.0	9.9	9.6
Proprietors, managers, administrators and officials	7.1	5.9	4.3	5.9	6.3	5.7	5.8	5.6	7.3	6.2	5.9	7.4	0.8	0.9	0.9	0.6	0.7	0.6
Clerical, office and related workers	1.1	1.3	1.5	1.4	1.5	2.0	1.6	2.1	2.9	2.6	2.7	3.7	4.6	4.2	4.3	5.1	5.4	5.5
Salesmen and related workers	10.3	10.7	11.0	11.3	9.8	10.9	10.2	12.2	12.5	11.6	11.6	12.4	21.5	20.8	20.5	17.2	17.9	17.6
Farmers, farm laborers, fishermen, hunters, lumbermen and related workers	41.8	42.6	47.8	44.0	42.5	43.7	47.0	43.9	37.4	40.7	42.2	34.1	29.3	31.6	34.2	38.4	36.6	34.4
Workers in mine, quarry and related occupations	0.1	-	-	(e)	(e)	-	(e)	-	-	-	0.1	(e)	0.03	-	0.3	-	-	0.0
Workers in operating transport occupations	-	-	(e)	(e)	0.1	(e)	(e)	0.1	0.1	(e)	-	0.1	0.2	0.2	0.2	0.2	0.2	0.2
Craftsmen, factory operatives and related workers	22.0	22.4	19.2	20.5	21.6	18.8	17.7	18.3	16.5	16.7	16.6	16.7	15.3	14.4	13.6	12.1	12.5	14.6
Manual workers and laborers, n.e.c.	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	(e)	0.2	(e)	0.2	0.2	0.1	0.1	0.1	0.2	0.2
Service and related workers	12.5	12.3	11.2	11.8	13.0	12.8	12.2	12.4	16.2	14.7	14.3	16.6	17.8	17.4	16.7	16.8	16.2	17.0
Occupations not reported	0.9	0.6	0.6	0.4	0.7	0.5	0.4	0.2	0.7	0.4	0.2	0.3	0.1	0.3	0.1	0.2	0.3	0.3
Percent (total)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(e) = Less than 0.05 percent.

Table 23. Employed persons by major occupation groups (1965-1974), May series (urban) (49).

	Both sexes (Urban)									Male (Urban)									Female (Urban)								
	1965	1966	1967	1968	1969	1971	1972	1973	1974	1965	1966	1967	1968	1969	1971	1972	1973	1974	1965	1966	1967	1968	1969	1971	1972	1973	1974
Total employed persons (000)	3,016	3,223	3,426	3,602	3,267	3,592	3,744	3,981	4,206	1,885	1,970	2,101	2,203	2,106	2,191	2,284	2,333	2,476	1,131	1,253	1,352	1,399	1,161	1,400	1,461	1,648	1,730
Percent of total																											
Professional, technical & related workers	8.6	9.1	8.3	9.2	9.2	10.0	9.4	11.0	11.0	6.9	6.9	6.5	7.1	6.4	7.3	6.6	7.9	7.7	11.4	12.6	11.0	12.5	14.2	14.1	13.7	15.5	15.7
Administrative, executive & managerial workers	6.7	7.0	6.9	7.9	3.0	3.0	2.8	2.7	2.9	6.1	6.2	5.7	6.4	4.0	3.5	4.0	3.3	3.9	7.8	8.3	8.7	10.2	1.4	2.1	0.9	1.8	1.5
Clerical workers	6.7	8.2	7.7	8.5	8.0	9.2	8.8	9.6	9.7	9.6	9.5	8.5	9.1	7.9	9.3	8.5	9.2	8.2	7.2	6.3	6.4	7.4	8.3	8.9	9.2	10.3	11.8
Sales workers	12.1	12.1	12.7	12.2	16.6	20.2	21.4	20.4	19.6	9.1	8.8	8.7	7.8	12.0	15.6	16.5	15.7	17.0	17.1	17.2	18.9	19.2	24.9	27.3	29.1	26.9	23.4
Farmers, farm laborers, fishermen, hunters, loggers, & related workers	16.5	18.0	17.0	17.3	16.1	9.2	9.2	8.5	10.3	22.2	22.9	22.5	22.8	21.6	13.4	13.0	12.8	14.9	7.1	10.1	8.1	8.7	6.1	2.7	3.3	2.4	3.8
Miners, quarrymen & related workers	0.1	0.1	0.2	0.2	0.3	0.2	0.3	0.2	0.1	0.2	0.2	0.4	0.3	0.4	0.4	0.6	0.3	0.2	-	-	*	-	0.1	-	-	-	-
Workers in transport & communication occupations	4.8	5.2	5.5	5.6	6.5	7.1	7.4	6.5	6.3	7.6	8.5	8.9	9.1	9.7	11.4	12.0	10.8	10.4	0.1	*	0.1	0.1	0.6	0.4	0.3	0.5	0.4
Craftsmen, production process workers & related workers	20.6	19.3	19.5	18.8	19.1	19.1	19.3	17.9	17.5	22.3	22.0	22.3	21.6	21.5	23.6	23.2	23.2	21.2	17.7	15.0	15.2	14.5	14.9	12.1	13.2	10.4	12.2
Manual workers & laborers	3.8	2.9	3.1	3.4	3.5	2.9	3.1	3.6	3.3	5.8	4.6	5.0	5.5	5.2	4.8	4.9	5.9	5.3	0.3	0.1	0.2	0.1	0.3	0.1	0.3	0.3	0.4
Service, sports & related workers	18.1	18.0	18.9	16.7	17.2	18.9	18.0	19.5	19.1	10.1	10.2	11.3	10.0	11.0	10.5	10.6	10.8	11.1	31.3	30.2	31.0	27.2	28.6	31.9	29.7	31.7	30.6
Occupation not reported	*	0.1	0.3	0.2	0.5	0.3	0.2	0.1	0.2	*	0.1	0.2	0.2	0.5	0.2	0.2	0.1	0.2	*	0.2	0.4	0.1	0.6	0.5	0.2	0.2	0.3
Percent (total)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

*Less than .05 percent.

Table 24. Employed persons by major occupation group (1965-1974), May series (rural) (49).

	Both sexes (Rural)									Male (Rural)									Female (Rural)								
	1965	1966	1967	1968	1969	1971	1972	1973	1974	1965	1966	1967	1968	1969	1971	1972	1973	1974	1965	1966	1967	1968	1969	1971	1972	1973	1974
Total employed	7,527	7,714	8,759	8,879	7,968	8,992	9,473	9,281	10,271	5,273	5,225	5,891	5,814	5,580	6,330	6,748	6,717	7,324	2,254	2,489	2,868	3,605	2,388	2,662	2,724	2,564	2,949
Percent of total																											
Professional, technical & related workers	1.6	1.9	1.7	1.6	1.9	2.5	1.9	2.2	2.1	0.9	0.9	1.2	0.9	0.9	1.5	1.2	1.1	1.1	3.1	3.9	2.8	2.9	4.0	5.0	3.7	5.0	4.6
Administrative, executive & managerial workers	2.3	2.5	2.3	2.5	0.3	0.6	0.5	0.3	0.3	1.1	1.2	0.9	1.2	0.3	0.7	0.5	0.2	0.3	4.9	5.2	5.2	5.0	0.3	0.3	0.3	0.3	0.3
Clerical workers	1.3	1.3	0.1	1.0	0.9	1.5	1.2	0.9	1.0	1.6	1.6	1.2	1.1	0.9	1.4	1.1	0.8	0.9	0.6	0.7	0.6	0.7	0.9	1.8	1.4	1.2	1.2
Sales workers	4.4	4.3	5.6	5.2	6.2	7.6	7.8	7.3	5.9	2.0	2.2	2.7	2.3	2.7	3.5	3.2	3.0	2.8	10.0	8.8	11.5	10.9	14.5	17.3	19.0	18.6	13.6
Farmers, farm laborers, fishermen, hunters, loggers	73.2	73.5	72.7	73.7	72.4	67.5	71.5	71.4	75.5	81.6	81.8	81.5	82.8	80.6	75.5	79.4	79.4	81.9	53.6	56.1	54.6	56.5	53.3	48.3	51.9	50.2	59.7
Miners, quarrymen & related workers	0.3	0.2	0.4	0.3	0.4	0.2	0.3	0.3	0.2	0.4	0.3	0.4	0.4	0.5	0.3	0.3	0.4	0.2	-	-	0.3	-	-	0.1	0.4	0.3	0.1
Workers in transport & communication occupations	1.5	1.4	1.4	1.1	2.0	2.8	2.5	2.6	2.2	2.2	2.1	2.0	1.8	2.8	3.9	3.6	3.5	3.1	0.1	*	-	-	0.1	0.1	-	0.1	0.1
Craftsmen, production process workers and related workers	10.2	9.9	10.2	10.1	10.3	11.0	9.8	9.4	8.3	6.2	6.2	6.4	6.4	7.1	7.8	7.1	6.8	5.7	19.5	17.5	18.0	17.0	17.7	18.8	16.7	16.3	14.7
Manual workers and laborers	1.4	1.1	1.1	0.8	1.2	1.8	1.2	1.6	1.6	1.8	1.5	1.5	1.0	1.7	2.6	1.6	2.2	2.2	0.5	0.2	0.3	0.4	0.1	0.1	0.1	0.2	-
Service, sports, & related workers	3.7	3.6	3.5	3.5	4.4	4.3	3.2	3.8	2.9	2.0	2.1	2.0	2.0	2.5	2.7	1.9	2.4	1.8	7.8	6.9	6.5	6.3	9.0	8.2	6.4	7.3	5.6
Occupations not reported	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.6	0.1	0.3	0.3	0.1	0.2	0.4	0.2
Percent (total)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

*Less than .05 percent.

Table 25. Employed persons by major industry group and sex (1965-1974), May series (urban) (49).

	Both sexes (Urban)									Male (Urban)									Female (Urban)								
	1965	1966	1967	1968	1969	1971	1972	1973	1974	1965	1966	1967	1968	1969	1971	1972	1973	1974	1965	1966	1967	1968	1969	1971	1972	1973	1974
Total employed persons (000)	3,016	3,223	3,426	3,602	3,267	3,592	3,744	3,981	4,206	1,885	1,970	2,101	2,201	2,106	2,191	2,284	2,333	2,476	1,130	1,253	1,325	1,399	1,161	1,400	1,416	1,648	1,730
Percent of total																											
Agriculture, forestry, hunting, and fishing	16.8	18.3	17.3	17.6	16.5	9.4	9.2	8.8	10.7	22.6	23.5	23.1	23.3	22.3	13.7	13.1	13.3	15.4	7.1	10.1	8.2	8.7	6.1	2.7	3.2	2.5	4.0
Mining & quarrying	0.3	0.3	0.4	0.4	0.5	0.4	0.5	0.4	0.2	0.4	0.4	0.7	0.7	0.7	0.7	0.9	0.7	0.3	-	-	-	-	0.1	-	-	-	0.1
Manufacturing	18.8	18.2	18.2	17.6	18.2	17.3	18.0	17.4	17.8	18.8	19.4	19.0	18.5	18.8	19.4	19.9	21.1	19.9	18.9	16.4	16.8	16.1	17.0	13.9	15.1	12.3	14.7
Electricity, gas, water & sanitary services	0.6	0.7	0.7	0.5	0.7	0.9	0.8	0.7	0.8	0.8	0.1	1.1	0.9	1.1	1.4	1.2	1.0	1.2	0.1	0.1	0.1	-	0.2	0.1	0.2	0.3	0.2
Construction	4.5	4.0	4.5	5.2	4.8	5.8	5.8	6.6	5.0	7.2	6.5	7.3	8.2	7.3	9.4	9.5	10.8	8.4	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.5	0.1
Commerce	19.8	19.2	19.6	20.1	18.6	22.6	24.3	24.1	23.5	16.1	19.8	14.4	14.3	1.40	18.7	20.0	19.2	20.9	26.0	26.7	27.8	29.2	26.9	28.9	31.1	31.0	27.1
Transport, storage & communication	7.4	7.4	7.1	6.9	7.1	7.2	6.8	6.5	6.4	11.4	11.5	11.1	10.9	10.6	11.1	10.8	10.5	10.3	0.7	0.9	0.8	0.7	0.9	1.1	0.7	0.9	0.8
Gov't., community, business & recreational services	15.5	15.5	15.4	16.7	18.4	19.5	19.0	18.6	18.2	16.0	15.6	15.9	16.5	18.1	18.8	18.6	17.0	16.1	14.5	15.5	14.7	17.0	19.0	20.6	19.6	20.8	21.3
Domestic services	10.6	10.8	11.6	9.5	10.0	11.5	10.7	12.5	11.8	2.7	2.8	3.4	2.6	2.5	2.0	1.8	2.6	2.7	23.6	23.4	24.8	20.5	23.6	26.3	24.6	26.4	24.9
Personal services other than domestic	5.7	5.3	4.8	4.7	4.5	5.1	4.4	4.2	5.4	3.8	4.2	3.8	3.4	4.0	4.6	4.0	3.6	4.5	9.0	7.2	6.5	6.7	5.5	6.0	5.0	5.1	6.8
Industry not reported	-	0.3	-	-	-	-	-	0.1	0.2	-	-	-	-	-	-	-	0.1	0.2	-	-	-	-	-	-	-	0.1	0.2
Percent (total)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 26. Employed persons by major industry group and sex (1965-1974), May series (rural) (49).

	Both sexes (Rural)									Male (Rural)									Female (Rural)								
	1965	1966	1967	1968	1969	1971	1972	1973	1974	1965	1966	1967	1968	1969	1971	1972	1973	1974	1965	1966	1967	1968	1969	1971	1972	1973	1974
Total employed persons (000)	7,527	7,714	8,759	8,879	7,968	8,992	9,473	9,281	10,273	5,273	5,225	5,891	5,814	5,580	6,330	6,748	6,717	7,324	2,254	2,489	2,868	3,065	2,388	2,662	2,724	2,564	2,949
Percent of total																											
Agriculture, forestry, hunting, fishing	73.7	73.9	73.1	74.0	72.6	67.9	72.0	7.18	75.9	82.2	82.4	82.0	83.0	80.9	76.0	80.1	80.0	82.3	53.6	56.1	54.7	56.8	53.3	48.4	52.0	50.3	59.8
Mining and quarrying	0.3	0.2	0.4	0.3	0.5	0.4	0.4	0.5	0.3	0.4	0.3	0.5	0.5	0.6	0.6	0.4	0.6	0.4	-	-	0.3	-	0.1	0.1	0.4	0.3	0.1
Manufacturing	8.7	8.3	8.8	8.5	8.8	9.5	8.4	7.8	7.4	4.1	3.9	4.1	4.0	4.9	5.4	4.8	4.4	4.4	19.4	17.6	18.3	17.0	17.8	19.2	17.1	16.8	14.9
Electricity, gas, water and sanitary services	0.1	0.2	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.3	0.2	0.1	0.1	0.4	0.2	0.1	0.2	-	-	-	-	-	-	-	-	-
Construction	2.2	2.0	2.2	2.2	6.3	2.9	2.5	2.8	1.9	3.0	2.9	3.2	3.3	3.5	4.1	3.5	3.9	2.6	0.2	-	-	-	-	0.1	0.1	0.1	0.1
Commerce	6.9	6.6	7.8	7.4	1.9	8.0	8.0	7.6	6.1	3.4	3.0	3.4	2.9	2.8	4.0	3.5	3.3	3.0	15.3	14.1	16.7	15.8	14.6	17.4	19.2	18.8	13.7
Transport, storage & communication	1.9	1.9	1.6	1.5	3.6	2.9	2.4	2.6	2.4	2.6	2.8	2.4	2.2	2.6	4.1	3.3	3.6	3.3	0.2	-	-	0.1	0.1	0.1	0.1	0.2	0.1
Govt., community, business & recreation services	3.1	3.7	3.2	2.8	2.5	4.8	3.6	3.7	3.6	3.0	3.3	3.1	2.5	3.1	4.2	3.3	3.0	2.8	3.4	4.6	3.4	3.4	4.6	6.2	4.6	5.8	5.4
Domestic services	2.1	2.0	1.9	1.8	1.2	2.2	1.7	1.9	1.5	0.5	0.5	0.4	0.6	0.7	0.4	0.3	0.5	0.4	5.8	5.1	4.9	4.2	6.7	6.6	5.0	5.6	4.1
Personal services other than domestic	1.0	0.9	0.9	1.1	0.2	0.9	0.8	0.9	0.7	0.6	0.5	0.6	0.5	0.6	0.7	0.6	0.6	0.4	2.0	1.7	1.6	2.2	2.6	1.6	1 3	1.9	1.6
Industry not reported	-	-	-	-	-	-	-	0.3	0.1	-	-	-	-	-	-	-	0.2	0.1	-	-	-	-	-	-	-	-	0.2
Percent (total)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 27. Employed persons by major industry and major occupation group and percentage of each group which is rural, 1965-1975 (49).

	Total employed persons in each major industry group		% of each industry group which is rural	
	1965 October	1975 August	1965	1975
	(In thousands)			
Major industry group				
Agriculture, forestry, hunting and fishing	5,725	7,768	91.6	94.6
Mining and quarrying	24	54	66.7	59.3
Manufacturing	1,101	1,651	52.1	52.6
Electricity, gas, water and sanitary services	22	46	0.0*	21.7
Construction	295	456	54.9	47.1
Commerce	1,114	1,623	48.3	39.2
Transport, storage & communication	339	492	37.8	45.4
Government, community, business and recreational services	708	1,335	32.6	33.2
Domestic services	500	782	29.8	25.3
Personal services other than domestic	227	272	31.3	27.9
Industry not reported	47	39		
Total	10,101	14,517		
Major occupation group				
Professional, technical and related workers	375	805	29.3	33.0
Administrative, executive and managerial workers	432	148	50.2	18.9
Clerical workers	352	556	24.7	18.3
Sales workers	675	1,415	48.6	43.2
Farmers, farm laborers, fishermen, hunters, loggers & related workers	5,677	7,713	91.7	94.8
Miners, quarrymen and related workers	14	27	71.4	62.9
Workers in transport and communication occupations	272	493	41.2	42.8
Craftsmen, production process workers and related workers	1,272	1,755	55.5	56.8
Manual workers and laborers	151	321	41.7	48.9
Service, sports and related workers	840	1,255	31.3	29.2
Occupation not reported	42	29		

*Less than 0.5 percent.

Table 28. Employed persons at work in agriculture and nonagricultural industries, by urban, rural and sex, October 1965 and August 1975 (49).

October 1965			August 1975			Percent increase in employed persons from 1965-1975 in		
Agric.	Non-agric.	Total	Agric.	Non-agric.	Total	Agric.	Non-agric.	Total
(In thousands)			(In thousands)					
			Philippines (Both sexes)					
5,725	4,376	10,101	7,768	6,749	14,517			
56.7	43.3	100.0	53.7	46.3	100.0	35.7	54.2	43.7
			Philippines (Male)					
4,493	2,312	6,805	6,080	3,532	9,612			
66.0	34.0	100.0	63.3	36.7	100.0	35.3	52.8	41.2
			Philippines (Female)					
1,232	2,064	3,296	1,688	3,217	4,905			
37.4	62.6	100.0	34.4	65.6	100.0	37.0	55.9	48.8
			Urban (Both sexes)					
481	2,475	2,956	417	4,027	4,444			
16.3	83.7	100.0	9.4	90.6	100.0	-13.3	62.7	50.3
			Urban (Male)					
400	1,432	1,832	368	2,179	2,547			
21.8	78.2	100.0	14.4	85.6	100.0	- 8.0	52.2	39.0
			Urban (Female)					
81	1,045	1,126	49	1,848	1,897			
7.2	92.8	100.0	2.6	97.4	100.0	-39.5	76.8	68.5
			Rural (Both sexes)					
5,243	1,900	7,143	7,350	2,723	10,073			
73.4	26.6	100.0	73.0	27.0	100.0	40.2	43.0	41.0
			Rural (Male)					
4,083	880	4,973	5,712	1,354	7,066			
82.3	17.7	100.0	80.8	19.2	100.0	39.6	53.9	42.1
			Rural (Female)					
1,150	1,019	2,169	1,639	1,369	3,008			
53.0	47.0	100.0	54.5	45.5	100.0	42.5	34.3	38.7

Table 29. Percentage of labour force employed in agriculture, nonagriculture, and unemployed by region (1968-1974) (49).

	Total labor force						Employed in agriculture						Employed in non-agriculture						Unemployed					
	1968	1969	1971	1972	1973	1974	1968	1969	1971	1972	1973	1974	1968	1969	1971	1972	1973	1974	1968	1969	1971	1972	1973	1974
Philippines (000)	13,534	12,046	13,220	14,200	13,886	15,204	7,202	6,325	6,440	7,166	7,016	8,245	4,909	5,280	6,144	6,051	6,246	6,234	1,053	812	636	983	624	725
(percent)							53.2	52.5	48.7	50.5	50.5	54.2	39.0	40.8	46.5	42.6	45.0	41.0	7.8	6.1	4.8	6.9	4.5	4.8
Regions																								
I Manila & suburbs	1,286	1,012	1,145	1,269	1,299	1,384	1.4	1.5	0.6	0.6	0.8	0.9	84.7	89.1	88.2	86.5	88.9	87.0	13.9	9.4	11.2	12.8	10.3	12.1
II Ilocos and Mt. Province	720	724	712	794	757	869	64.2	58.0	63.1	61.0	63.5	72.3	31.9	32.2	28.8	31.2	32.9	23.0	3.9	9.8	1.7	7.8	3.6	4.7
III Cagayan Valley and Batanes	461	321	519	561	547	601	84.8	69.8	70.9	67.2	75.9	75.7	13.9	23.4	26.4	27.6	21.6	19.3	1.5	6.8	2.7	5.2	2.5	5.0
IV Central Luzon	1,869	1,590	1,596	1,684	1,711	1,899	37.3	41.4	40.5	41.6	35.8	39.8	47.0	51.0	53.2	51.7	57.9	53.2	15.7	7.6	6.3	6.7	6.3	7.0
V Southern Luzon	1,528	1,400	1,784	1,989	1,949	2,157	45.8	40.8	34.6	38.7	37.9	42.7	46.3	49.6	56.8	51.5	55.7	51.2	8.0	9.6	8.5	9.8	6.4	6.1
VI Bicol & Masbate	1,246	1,117	1,093	1,017	1,071	1,202	64.0	63.7	57.2	51.9	60.3	63.6	29.2	31.6	41.4	42.8	38.2	35.3	6.8	4.7	1.4	5.3	1.5	1.1
VII Western Visayas	1,485	1,461	1,433	1,478	1,356	1,475	60.6	61.6	55.5	62.0	56.9	60.4	32.3	33.1	41.2	25.0	40.0	35.6	7.2	5.3	3.4	3.0	3.1	4.0
VIII Eastern Visayas	2,116	2,002	2,153	2,229	2,160	2,295	51.9	57.0	53.6	54.3	55.5	61.2	35.6	35.1	41.2	37.7	41.1	35.8	5.5	7.9	5.2	8.0	3.4	3.0
IX Northern Mindanao	1,111	902	1,071	1,125	1,065	1,268	58.8	61.6	62.2	65.6	66.7	72.5	35.0	34.6	34.4	29.3	30.0	24.6	5.2	3.6	3.4	5.2	3.3	2.9
X Southern Mindanao and Sulu	1,711	1,518	1,714	2,054	1,971	2,052	78.1	74.4	64.8	69.8	72.5	72.8	18.9	22.6	34.2	25.9	24.9	25.1	4.3	3.1	1.1	4.3	2.6	2.1

Table 30. Employed persons as farmers, farm labourers, fishermen, etc. by class of worker, sex, urban and rural, 1965-1975 (49).

Class of worker	Philippines			Urban			Rural		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
October 1965 (in thousands)	5,677	4,445	1,232	470	389	81	5,207	4,056	1,152
Wage and salary workers	15.2	13.4	21.5	23.6	22.1	30.8	14.5	12.6	20.8
Self-employed workers	51.2	62.5	10.7	53.8	60.9	19.8	50.9	62.6	10.2
Unpaid family workers	33.6	24.1	67.8	22.6	17.0	49.4	34.6	24.8	69.0
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
October 1967	6,299	4,694	1,605	529	435	94	5,771	4,259	1,511
Wage and salary workers	17.6	15.9	22.5	23.1	21.8	27.8	17.2	15.3	22.2
Self-employed workers	47.9	60.8	10.5	52.2	60.2	14.9	47.5	60.8	10.2
Unpaid family workers	34.5	23.3	67.0	24.7	18.0	56.3	35.3	23.9	67.6
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
August 1971	5,910	4,742	1,168	337	300	37	5,573	4,442	1,131
Wage and salary workers	13.4	13.5	12.6	17.3	17.0	18.9	13.2	13.3	12.6
Self-employed workers	52.4	62.0	13.6	62.3	66.0	27.0	51.8	61.7	13.0
Unpaid family workers	34.2	24.0	73.8	20.4	17.0	54.1	35.0	25.0	74.4
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
November 1973	7,707	5,945	1,762	431	364	67	7,276	5,581	1,695
Wage and salary workers	15.0	14.3	17.0	23.5	22.3	29.9	14.4	13.7	16.6
Self-employed workers	46.9	57.3	11.9	53.1	59.6	17.9	46.6	57.2	11.6
Unpaid family workers	38.1	28.4	71.1	23.4	18.1	52.2	39.0	29.1	71.8
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
November 1974	7,633	6,011	1,622	447	382	64	7,187	5,629	1,558
Wage and salary workers	15.1	14.8	16.9	24.6	23.3	32.8	14.6	14.2	16.0
Self-employed workers	48.1	58.3	13.3	53.3	58.6	20.3	48.5	58.3	13.0
Unpaid family workers	36.2	26.9	69.8	22.1	18.1	46.9	36.9	27.5	71.0
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
August 1975	7,713	6,027	1,686	397	349	47	7,316	5,678	1,639
Wage and salary workers	14.3	14.1	14.9	17.9	17.8	19.1	14.1	13.9	14.8
Self-employed workers	48.3	57.9	13.8	58.9	62.5	34.0	47.7	57.6	13.2
Unpaid family workers	37.4	27.9	71.3	23.2	19.8	48.9	38.2	28.4	71.9
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 31. Employed persons at work by percentage working 40 hours or more, by major industry, group, 1965-1975 (49).

Major industry group	Percent working 40 hours or more													
	Oct. 1965	Mar. 1971	May. 1971	Aug. 1971	Feb. 1972	May 1972	May 1973	Aug. 1973	Nov. 1973	Feb. 1974	May 1974	Aug. 1974	Nov. 1974	Feb. 1975
Agriculture, forestry, hunting and fishing	71.5	67.9	69.8	69.1	66.5	67.1	69.3	69.9	67.7	65.1	67.7	71.9	71.9	70.4
Mining and quarrying	98.2	85.1	89.6	88.4	77.4	81.7	86.2	86.6	88.3	78.2	92.9	92.6	87.7	90.0
Manufacturing	63.6	71.7	75.7	74.1	74.9	73.9	75.7	77.3	76.9	78.2	75.8	80.0	79.4	78.7
Electricity, gas, water and sanitary services	100.0	93.7	96.4	93.5	99.9	90.3	95.7	98.5	99.1	95.5	97.3	99.1	100.0	96.8
Construction	84.7	90.6	88.6	87.7	89.7	87.9	85.3	83.5	87.9	83.0	85.9	86.0	87.6	83.5
Commerce	67.9	72.6	76.1	78.7	76.4	73.8	75.4	75.1	77.0	77.7	77.2	80.7	79.0	79.3
Transport, storage & Communication	86.5	84.5	87.1	84.6	83.0	86.2	83.4	84.6	84.4	85.6	85.3	86.3	89.3	87.9
Government, community, business and recreational services	93.0	91.5	91.9	93.4	94.9	92.3	94.9	95.6	94.0	95.0	92.7	95.1	95.4	94.6
Domestic services	89.1	87.4	92.2	93.7	91.7	93.3	91.9	91.4	92.8	92.4	92.2	92.4	91.4	91.5
Personal services other than domestic	71.3	74.7	79.8	79.0	82.1	78.1	77.9	77.1	80.8	80.1	80.8	81.5	83.4	85.8
Industry not reported	41.4	44.9	66.4	45.7	-	27.0	62.4	38.5	51.7	29.2	36.4	37.6	40.3	20.8
All industries	73.4	74.3	75.9	76.4	74.2	73.2	75.5	75.7	74.7	76.5	73.9	78.0	77.9	76.9

Table 32. Employed persons at work by percentage working 40 hours or more, by major occupation group, 1965-1975 (49).

Major occupation group	Percent working 40 hours or more													
	Oct. 1965	Mar. 1971	May 1971	Aug. 1971	Feb. 1972	May 1972	May 1973	Aug. 1973	Nov. 1973	Feb. 1974	May 1974	Aug. 1974	Nov. 1974	Feb. 1975
Professional, technical and related workers	93.1	91.1	89.1	93.0	95.2	85.4	93.3	95.4	94.2	96.0	90.3	94.6	94.0	94.6
Administrative, executive and managerial workers	84.8	90.6	92.7	91.4	94.2	93.1	94.1	95.0	96.7	90.6	94.8	94.8	94.6	93.9
Clerical workers	93.9	94.9	94.6	97.1	97.6	97.2	97.3	97.6	95.9	96.4	97.2	97.6	98.8	98.1
Sales workers	56.6	70.8	74.3	76.8	75.1	72.2	73.1	72.6	74.8	75.3	74.7	78.4	76.9	77.0
Farmers, farm laborers, fishermen, hunters, loggers	71.4	67.7	69.7	68.9	66.2	67.1	69.1	69.7	67.5	69.9	67.5	71.9	71.7	70.2
Miners, quarrymen and related workers	97.2	83.9	89.9	91.2	68.6	72.3	77.9	72.8	90.2	67.4	86.7	86.6	91.3	84.9
Workers in transport & communication occupations	87.1	86.2	84.5	86.7	87.4	87.9	85.7	87.2	87.4	88.4	87.1	88.3	91.5	89.6
Craftsmen, production process workers	65.8	74.0	77.1	75.0	75.2	75.0	75.7	76.7	77.1	77.0	75.0	79.3	78.6	77.7
Manual workers & laborers	80.2	80.4	82.9	83.4	76.8	83.3	81.2	80.3	78.8	80.9	84.2	82.3	86.8	83.3
Service, sports & related workers	86.0	85.7	89.4	89.9	90.0	90.0	90.2	89.5	90.2	89.9	90.1	91.0	92.6	90.3
Occupation not reported	35.6	36.4	63.9	-	53.4	-	57.5	41.7	43.0	28.3	34.4	30.7	33.3	16.3
All occupations	73.4	74.3	75.9	76.4	74.2	73.2	75.5	75.7	74.7	76.5	73.9	78.0	77.9	76.9

Table 33. Employed persons at work in agriculture and nonagricultural industries by desire for additional work by number of hours worked during the survey week and sex, October 1965 and August 1975.

Hours worked during the survey week and sex	Total				Agriculture				Non-agricultural industries			
	Number in thousands		Percent wanting additional work		Number in thousands		Percent wanting additional work		Number in thousands		Percent wanting additional work	
	1965	1975	1965	1975	1965	1975	1965	1975	1965	1975	1965	1975
Both sexes	9,813	14,140	25.4	13.6	5,563	7,587	24.5	13.3	4,251	6,553	26.5	14.0
Under 40 hours	2,591	3,358	38.5	25.9	1,580	2,386	35.1	21.3	1,012	972	43.8	37.1
40 hours and over	7,213	10,777	20.6	9.8	3,977	5,198	20.2	9.6	3,236	5,579	21.2	9.9
Male	6,601	9,353	27.6	14.8	4,366	5,935	25.3	13.5	2,234	3,418	32.0	17.0
Under 40 hours	1,238	1,724	47.5	30.0	893	1,392	42.5	25.3	345	332	60.4	49.7
40 hours and over	5,356	7,627	22.9	11.3	3,467	4,541	20.8	9.9	1,889	3,086	26.9	13.5
Female	3,213	4,786	20.9	11.3	1,197	1,652	21.6	12.7	2,016	3,134	20.5	10.6
Under 40 hours	1,354	1,634	30.3	21.6	686	995	25.6	15.8	667	640	35.2	30.5
40 hours and over	1,857	3,150	14.0	6.0	510	657	16.2	8.1	1,347	2,493	13.2	5.5

Table 34. Percentage of families by main source of income, rural and urban, 1961, 1965, 1971 (270).

	Rural			Other urban areas			Metropolitan Manila			Total urban			Total families		
	1961	1965	1971	1961	1965	1971	1961	1965	1971	1961	1965	1971	1961	1965	1971
Total no. of families	2921	3606	4434	1144	1062	1388	361	458	525	1505	1520	1913	4426	5126	6347
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Wages and salaries	26.2	28.2	33.1	48.5	58.2	61.6	78.0	78.5	77.2	55.5	64.3	65.9	36.0	38.9	43.0
Agricultural			14.0			4.0			0.2			2.9			10.7
Non-agricultural			19.0			57.6			77.2			62.9			32.3
Entrepreneural activities	68.7	67.6	61.7	43.6	35.2	30.1	17.2	14.7	15.4	37.3	29.0	26.1	58.0	56.1	51.0
Trading	4.1	4.8	4.3	10.8	10.1	11.7	8.6	7.9	7.6	10.3	9.4	10.6	6.2	6.2	6.2
Manufacturing	1.6	3.8	2.7	3.0	4.2	4.9	1.9	2.4	2.7	2.8	3.7	4.3	2.0	3.7	3.1
Transport	0.8	0.9	1.3	2.1	2.3	1.4	2.0	0.5	1.1	2.1	1.7	1.3	1.2	1.2	1.3
Other enterprises (including practice of trade or profession)	0.5	0.4	0.5)	3.0	1.9	2.4)	3.3	2.0	1.6	3.1	1.9	2.2)	1.4	0.9	1.0
		0.4	0.4)		1.2	1.0		1.4	2.3		1.2	1.4)		0.7	0.7
Farming (including poultry & Livestock)	56.4	52.3	47.3	20.8	12.8	6.1	1.2	0.5	0.1	16.1	9.1	4.5	42.7	39.5	34.4
Fishing, forestry and hunting	5.3	4.9	5.3	3.8	2.8	2.6	0.2	-	0.1	2.9	1.9	1.9	4.5	4.0	4.3
Other sources	5.3	4.2	5.2	7.9	6.6	8.3	4.8	6.8	7.4	7.2	6.6	8.1	5.9	4.9	6.0
Landowner's share of crops, livestock & poultry raised	1.5	2.3	1.9	2.3	1.9	1.5	0.1	-	-	1.8	1.3	1.1	1.6	2.0	1.7
Rent received for non-agric. lands for bldgs., rooms and other properties	0.1	0.1	0.1	0.3	0.3	0.7	1.1	0.9	0.7	0.5	0.5	0.7	0.2	0.2	0.3
Rental value of owner-occupied house	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interests and dividends	-	-	0.0	0.1	-	0.1	0.1	-	-	0.1	-	0.1	0.1	-	0.0
Profits from sales of stocks and bonds	0.1	-	-	-	0.1	-	0.1	0.1	-	0.1	0.1	-	0.1	-	-
Pension or retirement benefits	0.9	0.3	0.6	1.5	1.7	1.5	1.3	1.9	2.1	1.1	1.8	1.6	1.1	0.7	0.9
Backpay and proceeds from insurance	-	-	-	-	0.1	0.1	-	-	0.1	-	-	0.1	-	-	0.0
Gifts, support, assistance and relief	2.0	1.3	1.9	2.9	1.8	3.7	1.5	3.9	4.3	2.2	2.5	3.9	2.2	1.7	2.5
Net winnings from gambling, sweepstake and lotteries	0.1	-	0.2	0.3	0.3	0.5	-	-	0.2	0.1	0.2	0.4	0.1	0.1	0.3
Inheritance in cash or converted to cash	0.3	0.1	0.3	0.3	0.4	0.2	0.1	-	-	0.3	0.3	0.2	0.3	0.1	0.2
Others	0.2	-	0.1	0.2	0.1	0.0	0.5	-	-	0.2	-	0.0	0.2	-	0.0

Table 35. Percentage of families having income from specified sources by rural and urban, 1961, 1965 and 1971 (270).

	Rural			Other urban areas			Metropolitan Manila			Total urban			Total families		
	1961	1965	1971	1961	1965	1971	1961	1965	1971	1961	1965	1971	1961	1965	1971
No. of families	2921	3606	4434	1144	1062	1388	361	458	525	1505	1520	1913	4426	5126	6347
							Percent								
Wage and salaries															
Agricultural	30.9	36.4	28.9	25.0	14.7	7.5	0.6	1.3	0.6	17.6	10.7	5.6	26.4	28.8	21.9
Non-agricultural	18.5	22.2	25.5	57.2	59.2	64.7	82.1	82.4	84.3	63.1	66.2	70.1	33.7	35.2	39.0
Entrepreneurial activities															
Trading	12.0	13.5	13.6	21.5	21.9	24.4	14.5	16.5	16.3	19.8	20.2	22.2	14.7	15.5	16.2
Manufacturing	13.3	11.4	11.0	10.1	11.0	9.9	3.8	5.7	7.9	8.6	9.4	9.4	11.7	10.8	10.5
Transport	2.1	2.9	2.5	3.6	4.0	2.7	2.6	0.9	1.8	3.3	3.1	2.4	2.5	3.0	2.5
Other enterprises (including practice of profession or trade)	1.7	1.5 0.8	1.4 0.9)	6.6	5.4 2.8	5.1) 2.3)	5.4	4.8 2.0	3.1) 3.7)	6.4	5.2 2.5	4.6) 2.7)	3.3	2.6 1.3	2.4 1.4
Farming (including poultry and livestock)	89.0	81.3	74.1	57.7	38.1	26.1	5.8	5.3	0.9	45.2	28.2	19.2	74.1	65.6	57.5
Fishing, forestry and hunting	83.3	75.2	69.0	50.0	37.4	25.8	2.0	6.5	1.2	38.5	28.1	19.0	68.0	61.2	54.0
Production of articles for own use	64.2	50.3	37.2	41.8	24.6	15.0	15.2	18.6	5.4	35.4	22.8	12.3	54.4	42.2	29.7
Other sources															
Landowner's share of crops, livestock and poultry raised	10.3	13.3	9.8	14.1	11.0	7.6	1.4	0.6	0.8	11.1	7.8	5.8	10.6	11.6	8.6
Rent received from non-agricultural lands, for bldgs., rooms and other properties	1.7	4.3	4.0	5.9	7.3	8.9	11.2	9.9	7.3	7.2	8.1	8.5	3.5	5.4	5.4
Rental value of owner-occupied house	97.6	97.7	96.2	93.1	90.1	80.8	52.3	48.5	35.6	83.3	77.6	68.4	92.8	91.7	87.8
Interests and dividends	0.6	0.7	1.6	1.9	3.2	4.6	2.1	9.5	9.4	2.0	5.1	5.9	1.1	2.0	2.9
Profits from sale of stocks & bonds	0.2	0.1	0.0	0.2	0.2	0.2	0.9	0.5	0.1	0.4	0.3	0.2	0.3	0.2	0.1
Pension or retirement benefits	1.1	0.4	1.0	3.0	2.8	2.7	3.1	3.8	4.7	3.0	3.1	3.3	1.8	1.2	1.7
Backpay and proceeds from insurance	0.3	-	0.2	2.0	0.3	0.8	1.2	0.6	0.4	1.8	0.4	0.7	0.8	0.1	0.3
Gifts, support, assistance & relief	22.7	14.5	24.7	22.9	17.2	33.9	14.5	67.2	39.7	20.9	32.3	35.5	22.1	19.8	28.0
Net winnings from gambling, sweepstakes or lotteries	6.8	4.3	4.9	6.5	4.5	4.9	1.4	3.4	3.0	5.3	4.2	4.4	6.3	4.3	4.7
Inheritance in cash or converted cash	1.3	0.7	1.0	1.6	0.7	1.1	0.4	0.1	-	1.3	0.5	0.8	1.3	0.7	0.9
Others	1.0	0.1	0.8	0.9	0.2	0.4	0.8	0.3	0.6	0.9	0.2	0.5	1.0	0.2	0.7
Index of diversity of income sources*															
Total	409.2	373.0	353.9	343.4	282.7	257.2	138.6	204.7	141.7	294.4	259.1	225.6	370.3	339.4	315.3

Table 36. Percentage of families having income from specified sources, by region, 1965 and 1971 (270).

Source of income	Year	Total families	Region I	II	III	IV	V	VI	VII	VIII	IX	X
No. of families	1965	5,126	458	302	175	739	640	407	570	859	361	625
	1971	6,347	525	346	260	855	869	496	670	980	522	825
						Percent						
Wages and salaries												
Agricultural	1965	28.8	1.3	23.6	30.9	20.5	32.0	47.2	44.0	33.7	32.6	22.4
	1971	21.9	0.6	27.4	31.6	14.5	21.7	32.3	42.4	24.1	19.7	13.8
Non-agricultural	1965	35.2	82.4	24.3	17.2	44.6	38.1	27.4	21.2	30.3	40.3	18.4
	1971	39.0	84.3	32.6	25.8	41.6	47.9	29.8	32.2	34.0	27.4	29.0
Entrepreneurial activities												
Trading	1965	15.5	16.5	10.5	5.1	16.0	14.2	15.1	16.0	17.7	21.2	14.1
	1971	16.2	16.3	21.0	11.8	19.8	17.5	14.2	1.83	14.7	14.4	13.0
Manufacturing	1965	10.8	5.7	8.0	3.3	7.5	13.0	11.9	9.7	16.1	19.7	7.8
	1971	10.5	7.9	15.4	3.1	7.0	9.5	13.7	17.2	13.1	12.4	5.5
Transport	1965	3.0	0.9	1.3	1.6	5.8	3.1	2.3	2.0	2.0	3.0	4.8
	1971	2.5	1.8	2.4	1.9	4.2	4.2	1.7	0.9	1.9	2.0	2.4
Other enterprises	1965	2.6	4.8	2.3	0.7	3.1	2.5	2.0	1.7	2.7	1.8	2.8
	1971	2.4	3.1	3.3	0.7	2.6	3.1	4.3	1.2	2.2	1.8	1.3
Practice of profession or trade	1965	1.3	2.0	0.6	-	0.8	2.6	1.0	2.1	0.9	0.5	1.5
	1971	1.4	3.7	0.4	1.6	1.2	2.2	0.0	0.6	1.6	0.9	1.4
Farming (including livestock and poultry)	1965	65.6	5.3	85.0	90.5	61.6	56.3	73.4	73.5	72.2	71.8	83.0
	1971	57.5	0.9	84.7	76.4	54.2	50.1	70.1	57.9	66.1	71.4	60.9
Fishing, forestry and hunting	1965	61.2	6.5	76.0	81.6	51.0	60.6	76.0	62.9	67.6	81.2	69.4
	1971	54.0	1.2	70.5	83.0	47.1	52.4	63.0	57.2	60.1	70.5	54.2
Production of articles for own use	1965	42.2	18.6	54.0	18.7	42.1	43.2	57.1	42.0	38.3	48.9	51.4
	1971	29.7	5.4	60.9	36.5	25.2	26.2	22.0	39.9	33.2	34.4	27.4

Table 36. (Cont.)

Other sources												
Share of crops and livestock from others	1965	11.6	0.6	23.2	12.8	9.6	8.7	15.1	16.3	13.7	15.1	7.9
	1971	8.6	0.8	17.4	25.9	5.9	7.2	6.9	6.7	9.9	11.4	7.7
Rent received from non-agricultural lands and other properties	1965	5.4	5.9	1.0	4.3	5.5	3.8	11.5	4.7	1.7	7.1	6.8
	1971	5.4	7.3	4.5	3.1	6.1	4.9	7.4	3.4	5.3	3.5	6.6
Rental value of owner-occupied houses	1965	91.7	48.5	95.4	96.9	96.9	65.2	97.7	94.3	96.7	94.3	94.0
	1971	87.8	35.6	97.3	95.7	96.2	88.2	87.0	91.7	93.1	92.4	93.8
Interests and dividends	1965	2.0	9.5	0.2	3.6	1.6	1.2	1.6	0.8	0.6	2.7	0.9
	1971	2.9	9.4	1.4	1.3	1.9	2.0	4.0	2.5	4.1	0.6	1.6
Profits from sale of stocks & bonds	1965	0.2	0.5	0.2	-	0.1	0.2	-	0.3	0.2	-	0.3
	1971	0.1	0.1	0.5	-	-	0.0	-	0.2	0.1	0.0	0.0
Pension and retirement benefits	1965	1.2	3.8	2.1	-	2.2	1.3	1.3	0.5	0.5	0.2	0.3
	1971	1.7	4.7	2.6	1.3	2.7	2.5	0.4	0.7	0.5	0.6	1.0
Backpay and proceeds from insurance	1965	0.1	0.6	-	-	0.1	0.1	-	0.1	-	0.2	0.4
	1971	0.3	0.4	0.1	-	0.2	0.8	0.9	0.2	0.2	0.2	0.1
Gifts, support, assistance & relief	1965	19.8	67.2	28.9	9.1	12.1	14.8	15.3	19.1	12.7	15.3	13.6
	1971	28.0	39.7	36.3	13.8	33.0	29.3	22.3	27.9	33.0	30.8	10.5
Net winnings from gambling and sweepstakes	1965	4.3	3.4	1.5	-	3.3	2.9	5.8	6.5	5.4	3.7	5.8
	1971	4.7	3.0	10.4	2.3	4.9	6.5	6.0	6.7	2.7	3.3	3.2
Inheritance in cash or converted cash	1965	0.7	0.1	-	-	0.8	0.1	0.4	0.5	1.1	1.6	1.2
	1971	0.9	-	0.7	-	1.0	1.4	0.6	1.1	1.1	1.1	0.8
Others	1965	0.2	0.3	-	-	0.1	0.1	0.4	-	0.3	0.5	-
	1971	0.7	0.6	-	-	0.4	0.5	0.8	0.9	0.7	1.9	0.5
Index of diversity of income sources	1965	339.4	190.7	390.2	330.2	320.2	323.9	387.9	353.0	350.4	389.3	366.0
	1971	315.3	142.9	429.8	357.6	313.6	308.5	325.3	335.2	343.6	353.6	291.8

Table 37. Agricultural land utilization, by kind of crop, 1966-1973 (in thousand hectares of crop area harvested).

	1966	1967	1968	1969	1970	1971	1972	1973
Philippines	8,296.3	8,511.3	8,805.7	8,919.3	8,946.4	9,096.8	9,381.8	9,212.9
Food crops	6,061.8	6,090.0	6,400.8	6,440.2	6,406.3	6,345.3	6,561.1	6,344.7
Palay (rough rice)	3,109.2	3,096.1	3,303.7	3,332.2	3,113.4	3,112.6	3,246.4	3,111.8
Corn (shelled)	2,106.1	2,157.9	2,247.9	2,256.1	2,419.6	2,392.2	2,431.7	2,325.4
Fruits & nuts except citrus	353.0	353.8	369.9	368.0	380.3	360.8	385.0	389.1
Citrus	28.5	28.7	28.0	25.2	21.3	18.9	18.7	19.0
Rootcrops	262.8	252.1	250.4	253.6	252.4	246.0	258.5	266.3
Vegetables	109.6	102.9	101.3	101.8	112.8	107.7	110.5	115.1
Coffee	45.7	50.1	49.4	51.9	54.0	54.3	54.8	60.8
Cacao	9.4	8.8	9.2	9.2	8.4	7.4	6.9	7.1
Peanuts (unshelled)	25.8	28.5	29.7	31.0	32.4	32.5	32.8	33.2
All other food crops	11.7	11.4	11.3	11.2	11.7	12.9	15.8	16.9
Commercial crops	2,234.5	2,421.3	2,404.9	2,479.1	2,540.1	2,751.5	2,820.7	2,868.2
Coconut	1,610.9	1,820.2	1,800.4	1,845.5	1,883.9	2,048.5	2,125.5	2,133.3
Sugarcane	315.3	308.7	318.3	343.0	366.1	441.6	441.0	455.2
Abaca	198.0	186.1	170.7	172.9	173.0	155.3	145.2	163.3
Tobacco	85.7	82.5	93.6	89.4	87.4	75.6	77.6	84.0
Ramie	2.8	2.5	0.8	1.4	2.4	2.4	2.4	2.4
Rubber	15.7	15.2	15.2	21.2	21.8	23.0	24.7	26.7
Maguey	3.0	3.0	2.9	2.8	2.8	2.7	2.6	2.6
Kapok (with seeds)	3.1	3.1	3.0	2.9	2.7	2.4	1.7	1.3

Table 38. Employment in crop farms, 1969-1973 (May series) (43, 48).

Crop farms	1969	1971	1972	1973	Average
Total employed in crop farms	5,755,880	5,733,179	6,273,249	6,217,884	5,995,023
			- P e r c e n t -		
Rice and corn	78.0	78.7	75.5	75.2	76.9
Sugar	4.9	5.4	5.5	4.8	5.1
Tobacco	1.7	0.4	2.5	1.5	1.5
Coconut	8.7	8.2	8.8	10.9	9.1
Abaca	0.9	0.4	0.6	0.4	0.6
Other crops such as fruits, vegetables, root crops, potatoes, cacao, etc.	5.8	6.9	7.3	7.2	6.8

Table 39. Farms, number by size and type, April 1971 (80).

Type of Farm	Total no. of farms	Under 1 ha	1.0 under 3 ha	3.0 under 5 ha	5.0 under 10 ha	10.0 under 25 ha	25.0 under 50 ha	50 ha and above
Philippines - all farms	2,354,469							
Percent		13.6	47.5	23.7	10.4	4.2	0.4	0.2
Rice		14.6	54.1	21.5	7.3	2.2	0.2	0.1
Corn		16.4	48.1	22.5	9.4	3.3	0.2	0.1
Coconut		6.2	37.0	29.2	17.5	8.9	0.8	0.4
Tobacco		21.9	58.4	16.3	2.5	0.8	0.1	0.0
Sugarcane		6.2	38.3	26.2	14.0	7.2	3.1	5.0
Citrus		30.0	35.9	14.5	11.0	6.2	1.6	0.8
Vegetables		29.2	52.4	12.4	4.8	1.1	0.1	0.0
Tuber, root and bulb crops		29.9	49.0	14.4	5.0	1.6	0.1	0.0
Coffee		11.4	47.0	25.9	10.8	4.4	0.3	0.2
Abaca		5.1	35.7	30.2	17.3	10.2	1.1	0.4
Banana		21.1	38.4	22.1	11.5	6.2	0.4	0.3
Pineapple		31.2	48.0	11.7	6.1	2.5	0.2	0.3
Other fruits		36.8	35.7	14.1	6.6	6.0	0.4	0.4
Chicken*		57.2	31.4	7.4	2.7	1.1	0.1	0.1
Hogs*		41.1	45.0	8.8	3.3	1.4	0.2	0.2
Cattle*		21.4	44.9	15.1	8.3	5.6	1.4	3.3
Others		11.4	41.0	28.1	13.0	5.9	0.4	0.2

Note: One hectare effective crop area for animals is equivalent to: 200 chickens or 6 hogs or 2 cattle.

Table 40. Farms, area by size, and type, April 1971 (80).

Type of Farm	Total area of farms	Under 1 ha	1.0 under 3.0 ha	3.0 under 5.0 ha	5.0 under 10 ha	10.0 under 25 ha	25.0 under 50 ha	50 ha and above
Philippines - all farms	8,493,735							
Percent		1.9	22.2	23.7	18.3	16.6	3.3	14.0
Rice		2.9	33.6	28.2	16.6	10.8	2.0	5.9
Corn		2.9	27.1	27.8	20.4	15.4	2.0	4.4
Coconut		0.7	12.9	21.5	22.8	26.4	5.5	10.2
Tobacco		5.8	48.9	29.6	8.4	6.3	1.0	0.0
Sugarcane		0.2	5.0	6.9	6.5	7.9	7.8	65.7
Citrus		2.0	8.6	8.1	10.3	14.6	8.9	47.5
Vegetable		7.0	43.0	23.2	16.0	7.9	1.2	1.7
Tuber, root and bulb crops		6.8	37.5	24.8	15.4	11.3	1.3	2.7
Coffee		1.5	22.5	27.0	19.9	18.7	2.7	7.7
Abaca		0.5	12.1	21.4	22.1	27.8	7.0	9.1
Banana		2.0	14.7	18.9	17.4	20.1	2.9	24.0
Pineapple		0.5	2.0	1.4	1.4	1.2	0.7	92.8
Other fruits		3.8	15.0	13.6	11.2	22.8	3.8	29.8
Chicken		11.2	38.2	22.1	13.0	10.8	1.7	3.0
Hog		8.5	33.1	15.1	10.0	9.6	3.1	20.6
Cattle		0.7	4.5	3.4	3.2	5.4	2.8	80.0
Others		1.3	18.0	25.3	20.5	20.0	3.0	11.9

Table 41. Farms, number by type and tenure of operator, April 1971 (80).

Type of farm	Total no. farms	Per-cent	Tenure of farm operator									
			Full owner	Part owner	Tenants						Manager	Other forms of tenure
					All types	Cash	Share of produce	Fixed amount of produce	Rent free	Others		
All farms	2,354,469		1,364,990	268,665	681,658	5,680	569,277	49,864	39,310	17,527	2,458	36,698
Percent	100.0	100.0	58.0	11.3	29.0	0.2	24.2	2.1	1.8	0.7	0.1	1.6
Rice	981,915	100.0	45.0	15.9	36.8	0.2	29.5	4.7	1.2	1.2	0.0	2.3
Corn	514,175	100.0	61.4	7.3	30.4	0.2	27.5	0.1	2.3	0.3	0.0	0.9
Coconut	432,486	100.0	74.4	6.4	18.2	0.1	16.6	0.1	1.1	0.3	0.2	0.8
Tobacco	3,859	100.0	47.9	16.7	34.2	1.0	29.8	0.5	1.3	1.6	0.0	1.2
Sugarcane	27,022	100.0	30.7	12.0	53.5	1.8	45.6	1.5	0.9	3.7	1.3	2.5
Citrus	918	100.0	72.1	4.2	22.7	0.0	21.5	0.7	0.5	0.0	0.7	0.3
Vegetables	8,475	100.0	57.1	10.6	29.8	3.6	21.7	1.0	2.9	0.6	0.1	2.4
Tuber, root & bulk crops	33,271	100.0	76.6	5.0	16.4	0.3	11.2	0.2	4.5	0.2	0.0	2.0
Coffee	14,075	100.0	85.5	2.6	10.6	0.1	6.5	0.2	3.8	0.0	0.2	1.1
Abaca	12,491	100.0	76.7	8.0	13.5	0.0	11.3	0.2	1.8	0.2	0.3	1.5
Banana	13,607	100.0	68.8	6.1	23.2	0.9	10.6	1.0	10.4	0.3	0.2	1.7
Pineapple	509	100.0	37.5	8.6	48.0	1.0	37.8	0.8	5.3	3.1	0.3	5.6
Other fruits	5,760	100.0	76.4	6.0	16.6	0.6	10.1	0.5	5.0	0.4	0.3	0.7
Chicken	3,028	100.0	71.0	6.7	18.7	2.7	8.8	1.3	5.6	0.3	2.0	1.6
Hog	11,690	100.0	62.4	13.5	21.5	0.2	16.9	1.5	2.6	0.3	1.2	1.4
Cattle	23,570	100.0	62.5	14.8	20.0	0.3	16.0	1.8	1.4	0.5	0.8	1.9
Others	267,537	100.0	69.0	12.4	17.1	0.2	13.9	0.5	2.2	0.5	0.1	1.4

Table 42. Farms, area by type and tenure of operator, April 1971 (80).

Type of farm	Total area of farms (hectares)	Per-cent	Tenure of farm operator									
			Full owner	Part owner	Tenants						Manager	Other forms of tenancy
					All types	Cash	Share of produce	Fixed amount of produce	Rent free	Others		
All farms	8,493,735		5,345,429	930,840	1,746,455	33,688	1,384,732	128,302	133,173	66,561	346,242	124,768
Percent	100.0		62.9	11.0	20.5	0.4	16.2	1.5	1.6	0.8	4.1	1.5
Rice	2,661,150	100.0	49.8	15.9	30.6	0.2	23.0	4.5	1.3	1.6	1.5	2.2
Corn	1,493,892	100.0	69.5	8.1	21.1	0.2	18.2	0.1	2.3	0.3	0.4	0.9
Coconut	2,152,776	100.0	73.9	7.2	16.1	0.1	14.6	0.1	1.0	0.3	1.8	1.0
Tobacco	7,320	100.0	53.8	17.3	27.5	1.2	23.4	0.2	1.2	1.5	0.0	1.4
Sugarcane	368,144	100.0	48.4	18.1	16.0	2.1	10.9	0.6	0.6	1.8	16.2	1.3
Citrus	6,064	100.0	45.4	4.5	15.2	0.0	15.1	0.1	0.0	0.0	33.5	1.4
Vegetable	16,126	100.0	62.0	12.0	23.7	2.6	17.2	0.8	2.1	1.0	0.4	1.9
Tuber, root & bulb crops	68,188	100.0	80.4	5.1	11.9	0.3	8.3	0.1	3.0	0.2	0.7	1.9
Coffee	48,001	100.0	86.5	4.1	7.4	0.0	4.7	0.1	2.6	0.0	0.8	1.2
Abaca	64,341	100.0	76.9	8.3	10.7	0.0	9.0	0.1	1.4	0.2	3.0	1.1
Banana	58,299	100.0	63.6	6.0	13.3	2.2	7.2	0.7	3.0	0.2	16.1	1.0
Pineapple	17,916	100.0	3.5	0.6	2.8	0.0	2.1	0.1	0.4	0.2	92.8	0.3
Other fruits	21,691	100.0	73.7	6.1	10.8	0.3	7.9	0.3	1.9	0.4	8.5	0.9
Chicken	3,907	100.0	64.5	9.8	18.0	2.3	10.8	2.3	0.6	2.0	5.5	2.2
Hog	24,439	100.0	61.0	15.0	14.5	0.2	11.4	1.0	1.5	0.4	8.0	1.5
Cattle	387,242	100.0	50.5	8.6	8.0	2.5	2.8	0.3	2.1	0.3	31.8	1.1
Others	1,094,238	100.0	71.5	10.0	12.9	0.3	9.7	0.3	2.1	0.5	4.0	1.6

Note: One hectare effective crop area for animals is equivalent to: 200 chickens or 6 hogs or 2 cattle.

Table 43. Farms, area by tenure of operator, by region and province, crop year 1970-71 (80).

Type of farm	Total area of farms	Per-cent	Tenure of operator									
			Full owner	Part owner	Tenants						Manager	Other forms of tenure
					Total all types	Cash	Share of produce	Fixed amount of produce	Rent free	Others		
Ave. size of farms (ha)	3.6		3.9	3.5	2.6	5.9	2.4	2.6	3.4	3.8	138.5	3.4
Philippines - all farms	8,493,735											
Percent	100.0		62.9	11.0	20.6	0.4	16.3	1.5	1.6	0.8	4.0	1.5
Region II - Ilocos	100.0		64.1	23.1	9.8	0.2	8.8	0.2	0.3	0.3	0.9	2.1
Abra		100.0	60.0	29.8	9.3	0.0	9.1	0.0	0.2	0.0	0.1	0.8
Benguet		100.0	94.1	3.2	0.8	0.2	0.4	0.0	0.2	0.0	1.2	0.7
Ilocos Norte		100.0	30.1	48.4	16.6	0.1	15.2	0.9	0.2	0.2	1.7	3.2
Ilocos Sur		100.0	46.6	39.4	11.9	0.1	11.3	0.0	0.3	0.2	0.4	1.7
Kalinga-Apayao		100.0	82.6	8.0	6.8	0.2	5.7	0.3	0.3	0.3	0.9	1.7
La Union		100.0	50.9	25.3	18.0	0.5	16.0	0.3	0.2	1.0	1.1	4.7
Mt. Province		100.0	95.3	3.4	0.8	0.0	0.1	0.0	0.7	0.0	0.0	0.5
Region III - Cagayan Valley & Bataneg	100.0		51.5	16.8	18.5	0.1	15.5	1.0	1.0	0.9	11.5	1.7
Batanes		100.0	82.2	8.6	2.5	0.0	1.8	0.0	0.7	0.0	4.9	1.8
Cagayan		100.0	40.2	18.5	14.7	0.0	13.0	1.3	0.2	0.2	25.9	0.7
Isabela		100.0	58.0	15.3	22.3	0.1	18.7	1.0	1.3	1.2	2.0	2.4
Nueva Vizcaya		100.0	62.8	16.0	17.9	0.2	12.6	0.4	2.7	2.0	0.7	2.6
Region IV - Central Luzon	100.0		26.0	18.9	48.9	1.5	29.0	13.3	0.7	4.4	1.7	4.5
Bataan		100.0	54.2	9.6	28.6	0.4	14.8	11.1	0.6	1.7	7.0	0.6
Bulacan		100.0	22.7	18.7	54.6	0.2	36.4	12.9	2.6	2.5	0.1	3.9
Nueva Ecija		100.0	17.4	16.0	54.3	4.0	26.9	19.3	0.4	3.7	4.1	8.2
Pampanga		100.0	20.2	8.6	70.7	1.4	37.4	16.3	0.4	15.2	0.2	0.3
Pangasinan		100.0	33.9	27.1	35.2	0.2	28.6	4.2	0.4	1.8	0.2	3.6
Tarlac		100.0	21.1	22.8	50.9	0.7	29.8	15.2	1.4	3.8	0.4	4.8
Zambales		100.0	48.0	18.2	32.0	0.1	18.1	10.0	2.0	1.8	0.8	1.0
Region V - Southern Tagalog	100.0		56.5	10.4	27.0	0.5	22.4	0.8	2.6	0.7	5.1	1.0
Batangas		100.0	39.2	13.7	39.1	0.1	37.2	0.6	0.4	0.8	7.5	0.5
Cavite		100.0	37.1	14.4	44.3	2.1	36.6	3.9	1.0	0.7	2.2	2.0
Laguna		100.0	32.3	21.0	28.2	0.7	22.7	1.9	0.8	2.1	16.9	1.6
Marinduque		100.0	73.4	13.3	11.6	0.0	9.9	0.1	0.5	1.1	1.1	0.6
Occidental Mindoro		100.0	58.6	10.5	19.3	0.1	15.1	2.3	1.3	0.5	10.8	0.8
Oriental Mindoro		100.0	53.5	12.2	26.4	2.1	22.7	0.3	1.1	0.2	6.7	1.2
Palawan		100.0	82.6	2.0	13.6	0.0	1.4	0.0	12.2	0.0	0.8	1.0
Quezon		100.0	60.0	8.0	29.7	0.1	27.2	0.3	1.3	0.8	1.6	0.7
Rizal		100.0	59.7	12.5	22.6	0.4	18.9	0.6	1.3	1.4	3.5	1.7

Table 43. (Cont.)

Region VI - Bicol & Masbate	100.0		63.4	8.7	23.4	0.1	21.0	0.3	1.4	0.6	3.0	1.5
Albay		100.0	52.7	12.7	31.8	0.3	28.7	0.3	2.0	0.5	1.1	1.7
Camarines Norte		100.0	61.1	6.3	31.8	0.0	29.4	0.2	1.1	1.1	0.4	0.4
Camarines Sur		100.0	61.4	8.3	26.7	0.1	23.7	0.5	1.7	0.7	2.0	1.6
Catanduanes		100.0	75.0	15.8	3.7	0.0	2.3	0.0	1.4	0.0	0.7	4.8
Masbate		100.0	71.9	6.3	13.3	0.1	11.7	0.1	1.0	0.4	7.2	1.3
Sorsogon		100.0	59.8	8.4	28.2	0.0	26.2	0.0	1.0	1.0	2.9	0.7
Region VII - Western Visayas	100.0		55.7	15.1	20.4	1.0	15.7	1.5	1.3	0.9	6.8	2.0
Aklan		100.0	56.2	23.4	15.3	0.0	13.1	1.3	0.5	0.3	3.1	2.0
Antique		100.0	63.6	18.2	17.0	0.1	15.5	0.7	0.2	0.5	0.6	0.6
Capiz		100.0	44.2	16.0	27.5	1.3	19.1	3.8	1.4	1.9	4.6	7.7
Iloilo		100.0	48.8	15.3	30.1	0.9	24.7	2.3	1.0	1.2	4.0	1.8
Negros Occidental		100.0	61.4	13.5	12.2	1.6	7.7	0.5	1.9	0.5	12.0	0.9
Romblon		100.0	69.7	8.7	20.3	0.1	18.1	0.3	0.4	0.9	0.8	0.5
Region VIII - Eastern Visayas	100.0		66.1	13.7	16.7	0.2	15.6	0.1	0.6	0.2	2.6	0.9
Bohol		100.0	57.8	23.7	13.6	0.0	12.8	0.0	0.7	0.1	4.1	0.8
Cebu		100.0	56.9	16.1	24.2	0.1	23.2	0.0	0.6	0.3	1.7	1.1
Eastern Samar		100.0	78.6	10.9	5.5	0.0	5.0	0.0	0.3	0.2	4.7	0.3
Western Samar		100.0	81.2	5.3	10.1	0.0	8.4	0.6	1.0	0.1	2.6	1.0
Northern Samar		100.0	75.6	9.0	15.2	0.0	14.5	0.1	0.4	0.2	0.1	0.1
Leyte		100.0	54.6	16.5	25.1	0.1	24.0	0.0	0.6	0.4	2.4	1.4
Negros Oriental		100.0	73.3	8.3	13.4	0.6	11.3	0.2	1.1	0.2	3.9	1.1
Southern Leyte		100.0	64.7	20.1	14.7	0.0	14.6	0.0	0.1	0.0	0.0	0.5
Region IX - North/ Northeast Mindanao	100.0		76.3	6.8	13.8	0.1	11.1	0.1	2.2	0.3	1.9	1.2
Agusan del Norte		100.0	67.8	8.1	22.5	0.0	21.4	0.0	1.1	0.0	0.8	0.8
Agusan del Sur		100.0	91.2	3.6	5.0	0.1	4.2	0.0	0.6	0.1	0.0	0.2
Bukidnon		100.0	68.8	5.4	19.3	0.2	13.2	0.1	5.5	0.3	5.7	0.8
Camiguin		100.0	66.2	16.0	15.5	0.0	15.3	0.0	0.2	0.0	0.8	1.5
Lanao del Norte		100.0	69.6	4.0	23.4	0.0	22.4	0.0	1.0	0.0	0.4	2.6
Lanao del Sur		100.0	88.6	6.5	3.9	0.1	3.4	0.1	0.2	0.1	0.7	0.3
Misamis Occidental		100.0	67.1	10.1	21.4	0.0	18.9	0.2	0.7	1.6	0.3	1.1
Misamis Oriental		100.0	76.0	6.2	13.5	0.0	8.5	0.1	4.6	0.3	0.6	3.7
Surigao del Norte		100.0	74.4	14.6	10.0	0.0	9.1	0.2	0.4	0.3	0.1	0.9
Surigao del Sur		100.0	83.0	7.1	7.3	0.0	6.7	0.0	0.4	0.2	1.8	0.8
Region X - South/ Southeast Mindanao	100.0		75.5	5.4	14.0	0.2	11.3	0.1	2.0	0.4	4.4	0.7
Cotabato		100.0	76.7	5.2	11.4	0.2	9.8	0.2	0.9	0.3	5.9	0.8
Davao del Norte		100.0	70.4	3.3	17.7	0.1	11.7	0.0	5.9	0.0	7.8	0.8
Davao del Sur		100.0	81.0	5.1	12.6	0.0	10.8	0.0	1.7	0.1	1.1	0.2
Davao Oriental		100.0	85.3	2.6	6.6	0.1	5.7	0.0	0.8	0.0	3.6	1.9
South Cotabato		100.0	65.0	8.8	19.3	0.8	16.7	0.3	1.1	0.4	6.4	0.5
Sulu		100.0	90.6	2.8	5.8	0.2	3.3	0.2	1.1	1.0	0.4	0.4
Zamboanga del Norte		100.0	73.7	4.4	18.7	0.0	13.2	0.0	5.5	0.0	2.5	0.7
Zamboanga del Sur		100.0	75.0	7.2	14.2	0.1	13.0	0.1	0.7	0.3	2.9	0.7

Table 44. Percentage of total farm area operated by full owners and percentage of low-income families, by province, 1971.

Province	Farm area operated by full owners	Low-income families (Below P3000)
	PERCENT	
Region II - Ilocos		
1. Abra	60	85
2. Benguet	94	53
3. Ilocos Norte	30	82
4. Ilocos Sur	47	77
5. Kalinga-Apayao	83	35
6. La Union	51	44
7. Mt. Province	95	82
Region III - Cagayan Valley and Batanes		
8. Cagayan	40	76
9. Isabela	58	83
10. Nueva Vizcaya	63	77
Region IV - Central Luzon		
11. Bataan	54	38
12. Bulacan	23	41
13. Nueva Ecija	17	26
14. Pampanga	20	40
15. Tarlac	21	51
16. Zambales	48	24
Region V - Southern Tagalog		
17. Batangas	39	62
18. Cavite	37	51
19. Laguna	32	53
20. Marinduque	73	69
21. Occidental Mindoro	59	36
22. Oriental Mindoro	54	65
23. Palawan	83	59
24. Quezon	60	69
25. Rizal	60	14
Region VI - Bicol and Masbate		
26. Albay	53	72
27. Camarines Norte	61	62
28. Camarines Sur	61	72
29. Catanduanes	75	72
30. Masbate	72	83
31. Sorsogon	60	91
Region VII - Western Visayas		
32. Aklan	56	93
33. Antique	64	94
34. Capiz	44	66
35. Iloilo	49	61
36. Negros Occidental	61	57
37. Romblon	70	73
Region VIII - Eastern Visayas		
38. Bohol	58	69

Table 44. (Cont.)

Province	Percent of farm area operated by full owners	Percent of low-income families (Below P3,000)
39. Cebu	57	72
40. Eastern Samar	79	71
41. Western Samar	81	85
42. Northern Samar	76	72
43. Leyte	55	75
44. Negros Oriental	73	68
45. Southern Leyte	65	75
Region IX - North/Northeast Mindanao		
46. Agusan del Norte	68	51
47. Agusan del Sur	91	65
48. Bukidnon	69	77
49. Lanao del Norte	70	47
50. Lanao del Sur	89	47
51. Misamis Occidental	67	79
52. Misamis Oriental	76	66
53. Surigao del Norte	74	97
54. Surigao del Sur	83	73
Region X - South/Southeast Mindanao		
55. Cotabato	77	53
56. Davao del Norte	70	54
57. Davao del Sur	81	57
58. Davao Oriental	85	41
59. South Cotabato	65	57
60. Sulu	91	42
61. Zamboanga del Norte	74	90
62. Zamboanga del Sur	75	65

Note: Coefficient of correlation between percent of farm area under full ownership and percent of low-income families in each province:

$r = .18$ $N = 62$
$P = .05$

Table 45. Landless households and those having land in percentage per homogeneous agricultural zone (H.A.Z.), (Western Visayas, 1975) (217).

Group	Families with land	Families without land: Agricultural laborers	Fishermen	Agriculturists	No. of households in sample
	(Percent)				
A. Irrigated rice	66	20	1	13	61
B. Rainfed rice	64	13	-	23	111
C. Rolling sugarcane/ rainfed rice	54	42	-	4	47
D. Upland	83	4	-	13	26
E. Fishing	3	-	97	-	33
Total sample	59	14	12	15	278

Table 46. Internal mobility of the labour force in the different homogeneous agricultural zones (H.A.Z.) (217).

Group	% working w/in the barrio: All the time	Partly working in outside: Barrio	Partly working in outside: Municipality	All the time working Outside: Barrio	All the time working Outside: Municipality
A. Irrigated rice	75.5	6.0	11.0	1.0	6.5
B. Rainfed rice	73.5	11.5	9.5	2.5	3.0
C. Rolling sugarcane/ rainfed rice	90.0	10.0	-	-	-
D. Upland	69.0	7.0	11.5	-	12.5
D. Fishing	67.0	16.0	8.0	3.0	6.0
Total sample	73.5	10.0	9.0	1.5	6.0

Table 47. Sources and average levels of annual income (1975) per H.A.Z. per rural household in pesos (Western Visayas) (217).

Group	Ave. no. of household members	Ave. labor force	Ave. no. of consumption units per household	Net production value of main crop activity	Commercialized farm products	Off-farm income: Head of household	Off-farm income: Housewife	Off-farm income: Household members	Pensions and remittances	Total income
A. Irrigated rice	5.9	1.67	4.70	P1,141.4	P252.7	P854.9	P238.0	P330.1	P 87.6	P2,904.3
B. Rainfed rice	5.5	1.79	4.55	617.5	304.8	874.5	195.9	395.9	371.4	2,754.8
C. Rolling sugarcane/ rainfed rice	5.5	1.54	4.33	569.5	698.1	1,264.4	270.2	359.5	-	3,161.7
D. Upland	5.9	1.85	4.71	210.7	336.8	979.7	68.0	438.5	70.2	2,088.6
E. Fishing	6.3	1.91	5.08	-	51.8	1,417.1	186.2	651.5	350.5	2,603.0

Table 48. Percentages of annual income per H.A.Z. per rural household derived from own farm, off-farm agricultural and off-farm nonagricultural occupations (Western Visayas) (217).

Agricultural zone	Percentage of annual income per rural household derived from: Own farm	Off-farm agriculture	Off-farm non-agriculture	Total
A. Irrigated rice	48	33	19	100.0
B. Rainfed rice	33.5	33.2	33.3	100.0
C. Rolling sugarcane/ rainfed rice	40	36	24	100.0
D. Upland	26	42	32	100.0

Table 49. Income sharing between farmers, labourers, and landlords (averages per farm household per H.A.Z. in pesos) (Western Visayas, 1975) (217).

Group	No. of Farmers	Income Share of Farmers	Laborers	Landlords	Total
A. Irrigated rice	44	₱1933 (50%)	₱1032 (27%)	₱880 (23%)	₱3845.00
B. Rainfed rice	90	1140 (64%)	320 (18%)	323 (18%)	₱1783.00
C. Rolling sugarcane; rainfed rice	14	2125 (65%)	597 (18%)	545 (17%)	₱3267.00
D. Upland	43	589*	(low)	N.A.	₱ 589.00

*This income is practically net because most upland farmers have land and hardly use hired labor for their land.

Table 50. Percentage distribution of households who raised poultry or livestock during the 12 months of 1974.

	Total	Rural	Urban
Yes, raised poultry or livestock	43.0	53.2	25.6
No	56.6	46.6	73.7
No response	0.4	0.2	0.7
Total number of households included	(42,986)	(27,129)	(15,857)

Table 51. Percentage distribution of households who raised livestock and poultry by purpose of raising them.

Purpose	Total	Rural	Urban
Home consumption	47.8	48.1	47.0
Commercial purpose	21.7	21.3	23.2
For both	28.1	29.1	24.5
No response	2.4	1.5	5.3
Total number of households raising livestock and poultry	(18,495)	(14,432)	(4,603)

Table 52. Percent of households raising certain kinds of livestock and poultry (256).

Livestock and Poultry	Total	Rural	Urban
Carabaos	8.4	10.3	1.5
Horses	0.4	0.4	0.3
Cattle	4.7	5.1	3.0
Goats	3.8	4.3	1.8
Pigs	34.2	32.6	39.9
Chickens and ducks	55.1	58.0	44.8
Other animals and fowls	1.2	0.9	2.3
Eggs	17.5	19.2	11.5
Total number of households raising livestock and poultry	(18,495)	(14,432)	(4,063)

Table 53. Combination of crops and livestock raised by 216 farmers from 10 villages in Bulacan and 200 from villages in Batangas (1975) (156).

Commodity Combinations Total number	Bulacan 216	Batangas 200	Total 416
		- Percent -	
Rice-corn	7.4	1.0	4.3
Rice-cattle	4.2	0.5	2.4
Rice-swine	5.1	1.5	3.4
Rice-chicken	13.4	1.0	7.5
Corn-cattle	-	0.5	0.2
Corn-chicken	0.5	-	0.2
Swine-chicken	0.5	1.5	1.0
Rice-corn-cattle	2.3	6.5	4.3
Rice-corn-swine	5.1	2.5	3.9
Rice-corn-chicken	12.5	3.5	8.2
Corn-cattle-swine	-	0.5	0.2
Cattle-swine-chicken	-	1.0	0.5
Rice-cattle-swine	-	3.5	1.7
Rice-chicken-swine	14.8	7.5	11.3
Rice-cattle-chicken	0.9	2.0	1.4
Rice-corn-cattle-swine	2.8	12.5	7.5
Rice-corn-cattle-chicken	2.8	7.5	5.0
Corn-cattle-swine-chicken	-	1.0	0.5
Rice-corn-swine-chicken	19.9	7.5	13.9
Rice-cattle-swine-chicken	3.2	3.5	3.4
Rice-corn-cattle-swine-chicken	4.6	35.0	19.2
T o t a l	100.0	100.0	100.0

Table 54. Percentage of Bulacan and Batangas farmers who raise each crop and livestock (156).

	Bulacan	Batangas	Total
Total number	216	200	416
Percent of total farmers raising each crop and livestock			
Rice	99.1	95.5	97.4
Corn	58.3	78.0	67.8
Cattle	20.8	74.0	46.4
Swine	56.5	77.5	66.6
Poultry	73.2	71.0	72.1
Leafy vegetables	5.6	4.0	4.8
Fruit trees	6.5	3.0	4.8
Root crops	13.9	25.5	19.5
Legumes	57.4	47.0	52.4
Plantation crops	12.5	21.0	16.6
Gourd	31.5	33.0	32.2
Other vegetables - tomatoes, okra, eggplant, etc.	40.3	47.5	43.8
Carabao	57.9	28.5	43.8
Goat	0.5	3.5	2.9
Duck	3.2	3.5	3.4
Horse	-	2.0	0.9
Other animals	1.4	0.5	0.9

Table 55. Experienced workers 10 years old and over by major occupation, and sex, 1970 (81).

Major Occupations	Total Philippines Both Sexes	Male	Female
	N = 11,755,286		
		- Percent -	
All Occupations	100.0		
Professional, Technical and Related Workers	5.7	3.5	10.6
Administrative, Executive and Managerial Workers	1.2	1.2	1.1
Clerical Workers	3.2	3.0	4.0
Sales Workers	6.8	4.2	13.0
Farmers, Fishermen, Hunters, Loggers and Related Workers	53.2	61.6	34.0
Farmers and Farm Managers	25.7	34.8	5.0
Farm Workers (Wage or Unpaid)	23.9	21.8	28.5
Hunters and Related Workers	*	*	*
Fishermen and Related Workers	3.1	4.3	*
Loggers and Forestry Workers	0.5	0.7	*
Miners, Quarrymen, and Related Workers	*	*	*
Workers in Transport and Communication	4.4	6.1	*
Craftsmen, Production Process Workers, and Laborers, N.E.C.	14.5	12.1	20.0
Service, Sport, and Related Workers	7.6	3.7	16.3
Stevedores and Related Freight Handlers and Laborers, N.E.C.	2.2	3.0	*
Occupation Unidentifiable, Members of the Armed Forces	0.6	0.7	*
Not stated	0.6		1.0

*Less than 0.5 percent.

Table 56. Experienced workers belonging to occupational category (farmers, fishermen, hunters, loggers and related workers) 10 years old and over by sex, 1970 (81).

	Philippines			
	Both Sexes		Male	Female
Total number	6,255,197		5,030,287	1,224,910
Percent	100.0	100.0	80.4	19.6
Farmers and farm managers	48.3	100.0	94.0	6.0
Farm workers (wage or unpaid)	44.9	100.0	63.3	36.7
Fishermen and related workers	5.8	100.0	97.2	2.8
Loggers and other forestry workers	1.0	100.0	93.5	6.5
Hunters and related workers	*	100.0	100.0	0.0

Table 57. Farmers and farm managers and farm workers 10 years old and over by sex and age, 1970 (81).

	Farmers and Farm Managers			Farm Workers		
	Both Sexes	Male	Female	Both Sexes	Male	Female
Total N	3,018,747	2,837,969	180,778	2,809,103	1,779,169	1,029,394
Age Group	100.0	100.0	100.0	100.0	100.0	100.0
Below 19	2.1	2.0	3.2	41.6	48.7	29.5
20 - 34	37.6	38.5	23.8	34.2	35.3	32.2
35 - 44	22.4	22.5	19.3	10.1	7.0	15.5
45 - 59	24.3	23.7	34.2	9.8	5.7	16.8
60*	13.6	13.3	19.5	4.3	3.3	6.0

Table 58. Labour force, 25 years old and over by major occupation, sex, residence, 1970 (81).

	Total (25 - 64)			Younger (25 - 34)			Older (55 - 64)		
	Manila	Other Urban	Rural	Manila	Other Urban	Rural	Manila	Other Urban	Rural
				- P e r c e n t -					
Male									
Prof., tech. and rel.	12.1	9.8	2.3	12.1	8.7	2.3	12.1	10.7	1.7
Administrative and executive	4.2	3.7	0.7	2.8	2.4	0.6	7.6	5.7	0.8
Clerical	13.6	8.3	1.3	14.0	8.9	1.3	10.6	6.2	0.9
Sales	12.3	9.3	2.4	9.8	8.7	2.3	17.0	10.9	2.2
Transport	16.0	12.8	4.2	17.1	15.5	5.5	11.2	6.3	1.6
Crafts	22.5	22.7	8.8	24.2	25.2	9.3	20.2	18.5	7.6
Service	9.6	7.1	1.8	9.6	7.2	1.9	11.8	6.5	1.3
Stevedores	7.8	5.3	1.9	8.9	5.9	2.2	6.7	5.1	1.5
Farmers and farm managers	0.6	12.2	57.8	0.5	8.3	51.3	0.6	21.0	68.1
Farm laborers	0.5	4.2	9.1	0.4	4.6	16.8	0.4	4.1	9.4
Other farm, miners	0.8	4.6	9.7	0.6	4.6	6.5	1.8	5.0	4.9
Female									
Prof., tech. and rel.	19.5	23.8	9.2	20.1	24.7	11.3	20.1	19.4	4.1
Administrative and executive	3.1	3.0	1.1	2.1	1.8	1.2	4.6	2.9	0.7
Clerical	16.0	8.5	1.2	20.5	12.4	1.9	7.7	1.9	0.4
Sales	20.4	22.5	11.1	15.6	17.1	9.3	32.9	34.6	13.8
Transport	1.0	0.4	0.1	1.2	0.6	0.1	1.0	0.2	0.1
Crafts	21.6	20.3	22.3	20.1	21.3	25.4	18.1	18.3	19.3
Service	17.3	14.8	4.9	19.3	17.6	5.9	14.2	10.4	3.2
Stevedores	0.8	0.5	0.2	0.8	0.6	0.2	1.1	0.3	0.2
Farmers and farm managers	0.1	1.7	9.8	0.1	0.7	5.8	0.0	4.8	18.0
Farm laborers	0.1	4.3	39.6	0.1	3.0	38.5	0.3	6.8	39.6
Other farm, miners	0.1	0.2	0.5	0.1	0.2	0.4	0.0	0.4	0.6

Table 59. Types of farm labour utilized in rice farming in Bay, Laguna and Baco, Oriental Mindoro (150, 152, 153, 199).

Types of Farm Labor	Bay, Laguna		San Antonio	Baco, Oriental Mindoro
	Puypuy	Tagumpay		Dulangan I and Sta. Lucia
	N = 70	N = 14	N = 53	N = 101
			- P e r c e n t -	
1. By myself alone	9	-	11	9
2. With the help of family members	12	14	19	14
3. With the help of family and hired labor	36	36	19	15
4. With hired farm labor	43	43	42	18
5. With exchange labor	-	7	9	18
6. With exchange labor and family	-	-	-	18
7. Combination of family, hired and exchange labor	-	-	-	8
Tenure Status				
Share tenant	61	7	63	57
Leasehold	39	86	-	1
Owner-operator	-	7	27	39
Part-owner	-	-	-	3
Average farm size	1.35 ha	0.95 ha	1.27 ha	1.91 ha

Table 60. Sources and cost of labour in man-days and value in pesos: 443 rice farms, Cagayan, 1975; 298 rice farms, Occidental Mindoro, 1974-75 (335, 336).

	Man-days per farm	Percent of total man-days	Rate/ day (pesos)	Total value (pesos)	Percent of total cost	Man-days per farm	Percent of total man-days	Rate/ day (pesos)	Total value (pesos)	Percent of total cost
			Cagayan					Occidental Mindoro		
First crop										
Operator	30.04	18	8.17	245.43	16.6	31.59	23	7.44	235.03	20.5
Family	12.20	7	7.31	89.18	6.0	26.13	19	6.24	163.05	14.3
Exchange	10.84	7	7.59	82.28	5.6	59.29	42	6.32	374.71	32.8
Hired:										
Cash	58.78	36	7.39	434.38	29.3	10.28	7	4.56	46.88	4.1
Non-cash	52.06	32	-	631.00	42.5	13.24	9	-	322.05	28.2
Total	163.92	100	-	1,482.27	100.0	140.53	100	-	1,141.72	100.0
Second crop										
Operator	20.53	16	10.39	213.31	15.6	29.11	22	6.72	195.62	17.9
Family	7.97	6	7.29	58.10	4.2	24.50	19	6.00	147.00	13.5
Exchange	4.40	3	7.82	34.49	2.5	54.11	41	6.96	376.61	34.5
Hired:										
Cash	52.47	41	8.84	463.83	33.9	12.38	9	5.20	64.38	5.9
Non-cash	42.93	34	-	600.44	43.8	11.22	9	-	308.39	28.2
Total	128.30	100	-	1,370.17	100.0	131.32	100	-	1,092.00	100.0

Table 61. Relative amounts spent per hectare (in pesos) for labour and for inputs such as seeds, fertilizer, and insecticides (42, 335, 336).

	Hired, family and exchange labor	Seeds, fertilizer and insecticides	Hired, family and exchange labor	Seeds, fertilizer and insecticides
A.	1972		1975	
Concepcion, Tarlac	₱800.16	₱403.35	₱1,240.59	₱831.66
San Mateo, Isabela	275.21	691.55	550.75	433.50
Minalin, Pampanga	590.71	157.36	911.07	446.49
Calumpit, Bulacan	718.50	288.50	1,151.30	520.29
Tagaon, Camarines Sur	681.46	177.66	818.51	294.39
Guimba, Nueva Ecija	939.65	309.45	1,077.00	934.98
B.	1975 First Crop		1975 Second Crop	
Occidental Mindoro	559.67	257.45	562.89	421.06
C.				
C a g a y a n	581.28	147.78	646.31	82.27

Table 62. Hired labour expenses per hectare according to land tenure status per irrigation class and per crop (1975) (218).

	First Crop	Second Crop
I. First class irrigation		
Owner	979.38	899.95
Lessee	977.78	891.78
Tenant	877.88	820.75
II. Second class irrigation		
Owner	722.80	642.35
Lessee	890.93	746.48
Tenant	695.55	611.74
III. Third class irrigation		
Owner	597.92	415.96
Lessee	627.01	501.79
Tenant	514.18	408.62

Table 63. Percentage of average household income derived from off-farm sources by crop season and tenure group (Nueva Ecija - Crop Year 1972/73) (226, p. 115-118).

	Owners N = 45	Amortizing Owners N = 51	Lessees N = 194	Share Tenants N = 90	
Wet season	33.8	48.5	24.4	45.8	
Dry season	67.2	84.4	58.1	95.7	
Total (wet and dry seasons)	44.2	64.4	37.6	67.2	
Percent of per capita household income derived from off-farm sources by crop season and tenure group (Nueva Ecija - Crop Year 1972/73).					
Wet season	26.8	54.9	22.3	44.9	
Dry season	60.6	89.3	58.1	99.2	
Total (wet and dry seasons)	36.8	69.1	35.2	66.8	
Percent of farmer respondents who had off-farm occupations by crop season and by tenure group.					
					All Tenures
Wet season	33.3	38.8	28.4	27.1	30.5
Between wet and dry seasons	37.5	38.9	37.6	39.6	38.2
Dry season	35.4	40.7	41.2	43.9	41.1

Table 64. Percentage total cost of production per hectare spent for labour (hired and upaid) and for material inputs by tenure status and cropping patterns, Iloilo - Crop year 1973-1974 (41).

Cropping patterns	No. of farms	Percent of total cost of production per hectare spent for: Hired labor: Value of man-days	Hired labor: Value of animal/ machine days	Hired labor: Total % spent for hired labor	Unpaid labor: Value of man-days	Unpaid labor: Value of animal/ machine days	Unpaid labor: Total % spent for unpaid labor	Material inputs: Seeds	Material inputs: Ferti-lizer	Material inputs: Chemi-cals	Total % spent for material inputs	% for other variable costs
Single-cropped	321											
Owner	99	22.7	2.3	25.0	6.7	1.8	8.5	3.4	7.9	1.9	13.2	7.6
Part-owner	14	18.1	3.7	21.8	9.9	3.9	13.8	3.9	8.1	6.6	18.6	8.8
Lessee	73	26.1	4.7	30.8	7.8	2.0	9.8	3.6	10.7	2.1	16.4	9.9
Tenant	132	22.0	3.4	25.4	9.9	2.8	12.7	3.5	6.9	1.9	12.3	32.8
Squatter	3	18.5	-	18.5	23.6	-	23.6	11.6	-	-	11.6	5.1
Double-cropped	439											
Owner	108	21.1	5.2	26.9	7.7	2.2	9.9	4.3	12.8	2.6	19.7	7.1
Part-owner	29	22.7	2.2	24.9	5.9	1.7	7.6	3.6	9.9	0.8	14.3	24.3
Lessee	88	26.7	6.3	33.0	8.8	3.6	12.4	3.9	7.4	3.1	14.4	15.9
Tenant	212	22.2	3.9	26.1	9.1	3.6	12.7	3.6	5.6	1.7	10.9	39.4
Squatter	2	16.1	-	16.1	21.4	5.6	27.0	16.1	-	-	16.1	7.4
Multi-cropped	223											
Owner	86	19.5	5.5	25.0	7.1	2.8	9.9	4.6	7.9	1.2	13.7	7.1
Part-owner	21	17.0	3.7	20.7	10.9	2.7	13.6	3.6	17.8	1.3	22.7	17.9
Administrator	4	25.5	0.4	25.9	1.4	0.5	1.9	2.7	51.7	0.8	55.2	12.5
Lessee	10	19.4	5.0	24.4	9.4	2.2	11.6	4.6	7.6	4.4	16.6	10.8
Tenant	95	17.8	2.5	20.3	9.5	0.3	9.8	5.7	8.1	1.6	15.4	37.5
Squatter	7	19.8	0.9	20.7	16.2	4.7	20.9	18.6	-	2.1	20.7	7.0
All cropping patterns	983											
Owner	293	21.2	4.5	25.7	7.2	2.3	9.5	4.5	9.8	1.9	16.2	7.3
Part-owner	64	20.0	2.9	22.9	8.2	2.3	10.5	3.7	12.6	1.7	18.0	20.1
Administrator	4	26.7	0.3	27.0	2.8	0.6	3.4	3.8	47.8	1.1	52.7	12.6
Lessee	171	22.4	7.4	29.8	7.4	2.6	10.0	3.4	7.2	2.5	13.1	11.9
Tenant	439	21.2	3.5	24.7	9.4	3.4	12.8	4.1	6.4	1.7	12.2	37.8
Squatter	12	18.9	0.6	19.5	17.8	4.4	22.2	16.2	-	1.5	17.7	6.8

Table 65. Family and hired labour used in rice production by two samples of rice farms, Philippines, wet seasons, 1966-1975 (169).

	Labor used in rice production per season (man-days/hectare)														
	Owner-operators				Share-tenants				Leaseholders				All groups			
	Family	Hired	Total man-days		Family	Hired	Total man-days		Family	Hired	Total man-days		Family	Hired	Total man-days	
	Percent				Percent				Percent				Percent			
								Laguna								
1966	47	53	(167.9)	100	45	55	(100.4)	100	39	61	(117.1)	100	50	50	(92.7)	100
1970	21	79	(88.3)	100	32	68	(90.7)	100	25	75	(90.0)	100	31	69	(90.5)	100
1975	20	80	(122.6)	100	26	74	(106.3)	100	20	80	(117.6)	100	23	77	(113.4)	100
								Central Luzon and Laguna								
1966	27	73	(60.6)	100	37	63	(62.3)	100	27	73	(70.4)	100	34	66	(63.4)	100
1970	25	75	(80.3)	100	38	62	(75.1)	100	35	65	(79.2)	100	36	64	(75.4)	100
1975	19	81	(105.0)	100	36	64	(91.5)	100	35	65	(91.8)	100	33	67	(93.9)	100

Table 66. Labour utilized per hectare pre- and post-amortizing ownership status, selected agrarian reform areas, crop year 1972 and 1975 (42).

Municipality/ Province	Hired Labor		Operator's Labor		Family and Exchange Labor	
	1972 Pre-	1975 Post	1972 Pre-	1975 Post	1972 Pre-	1975 Post
	(Man - days)					
Concepcion, Tarlac	48.05	56.19	49.35	39.16	11.53	16.60
San Mateo, Isabela	19.09	27.22	38.17	37.84	-	-
Minalin, Pampanga	48.15	54.57	37.55	25.39	1.75	4.54
Calumpit, Bulacan	11.65	11.24	11.12	10.37	9.57	9.67
Tagaon, Camarines Sur	88.58	95.18	17.49	22.87	10.23	8.26
Guimba, Nueva Ecija	92.82	70.99	57.97	50.07	19.73	13.86
Pototan, Iloilo	130.71	112.31	36.59	36.32	11.23	13.74

Table 67. Farmers who hired labour before and during Masagana 99, 895 participants, 1974 (229).

	Before Masagana 99	During Masagana 99
	Percent reporting use of hired labor	
Land preparation	52	55
Preparation of seedlings for transplanting	22	24
Transplanting	83	86
Fertilizer and chemical application	4	6
Weeding	28	30
Harvesting	32	33
Threshing	2	2

Table 68. Number of agricultural hired labourers from landless and farmers' household by farm size, number of households and persons in the household (village in Talavera, Nueva Ecija, 1976) (109).

Family Member	Farm Size in Hectares						Total from farmers' households	Total from landless households
	1.5 ha. and less	1.5-2	2-2.5	2.5-3	3.0-4	4+		
	Number of Agricultural Hired Workers							
Farmer (Landless household head)	8	4	1	0	0	0	13	28
Wife	4	5	1	3	0	0	13	13
Sons	7	3	11	5	4	4	39	18
Daughters	4	8	8	6	1	2	29	14
Others	0	2	3	1	1	1	8	5
T o t a l	23	27	24	16	6	7	102	83
Total no. of households	14			45				31
Total no. of persons in the households	83			326				175
Ave. size of household	5.93			7.24				5.4
Percent of total household members who are engaged in hired agricultural labor	27.7%			24.5%				47.4%
Ave. no. of hired laborers per household							2.35	2.7

Table 69. Household structure, number of families and rooms in the house, manner of home ownership by urban, rural and region, 1973 (240).

				Region									
	Phil.	Urban	Rural	I Metro Manila	II Ilocos	III Cagayan	IV Central Luzon	V Southern Luzon	VI Bicol	VII Western Visayas	VIII Eastern Visayas	IX Northern Mindanao	X Southern Mindanao
Type of family in the household													
a) Nuclear	72.0	60.3	77.0	59.1	62.1	67.9	69.6	72.3	83.2	72.9	71.1	77.4	78.4
b) Extended vertically, older and younger generation	20.3	25.4	18.1	24.2	29.3	26.0	24.2	19.8	12.8	20.7	21.7	14.1	15.5
c) Extended horizontally	4.6	8.7	2.9	10.5	4.4	2.8	3.8	4.6	3.6	3.7	3.7	5.6	3.9
d) Extended vertically & horizontally	3.1	5.6	2.0	6.2	4.1	3.3	2.4	3.3	0.4	2.7	3.5	2.9	2.2
Number of families in the household													
a) One	87.1	82.1	89.2	81.9	79.6	78.8	85.5	87.1	92.6	88.7	87.3	91.7	90.2
b) Two	11.4	15.3	9.7	15.0	18.5	18.6	12.7	11.1	7.1	10.8	10.8	7.3	8.9
c) Three +	1.5	2.5	1.1	3.1	1.9	2.6	1.8	1.8	0.3	0.5	1.9	1.0	0.9
Number of rooms in the house													
a) 1	27.2	18.3	31.1	9.1	41.5	28.0	32.1	35.3	33.0	18.0	22.2	26.1	30.0
b) 2	28.3	23.6	30.3	27.0	25.6	37.0	26.4	29.3	25.9	27.2	27.4	26.9	32.6
c) 3	23.3	25.3	22.4	28.6	18.1	15.8	21.8	17.2	20.3	32.5	26.7	24.2	22.2
d) 4	20.8	32.5	15.8	34.9	14.4	18.9	19.5	18.1	20.5	21.7	23.5	21.6	14.8
e) No information	0.3	0.3	0.4	0.3	0.4	0.3	0.2	0.1	0.3	0.6	0.2	1.2	0.4

Table 70. Relationship of household structure to income, education, occupation, and major language groupings, 1968 National Demographic Survey (211).

Household structure	A. Income - annual per capita income of the households							
	P100	P100-199	P200-299	P300-399	P400-599	P600+	No response	Total
Nuclear	86.6	84.2	82.1	77.2	76.9	71.1	N = 2,796	42,848
Extended	13.4	15.8	17.9	22.8	23.1	28.9	N = 1,968	10,628
Total percent	100.0	100.0	100.0	100.0	100.0	100.0		
Total N	10,480	12,496	7,908	5,360	5,468	7,900	4,764	53,476

	B. Education of household head						
		Elementary		High school		College	
	No schooling	1-4	5-7	1-3	Graduate	1-3	Graduate
Nuclear	79.0	81.7	82.6	79.8	77.5	73.9	65.8
Extended	21.0	18.3	17.4	20.2	22.5	26.1	34.2
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total N	9,716	17,308	12,728	4,200	3,772	1,396	2,720

	C. Occupation of household head								
	Professional adm. managers	Clerical	Sales	Skilled	Transport-ation	Unskilled non-farm	Farm owners	Farm tenants	Farm laborers
Nuclear	63.6	68.5	74.2	74.2	80.6	77.9	84.7	87.4	88.2
Extended	36.4	31.5	25.8	25.8	19.4	22.1	15.3	12.6	11.8
Total percent	100	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total N	5,208	2,376	4,072	5,248	2,292	3,672	12,980	12,200	5,248

	D. Major language group of household head				
	Tagalog and Pampango	Visayans	Ilocanos	Bicol	Others
Nuclear	76.4	84.1	77.1	80.9	85.3
Extended	23.6	15.9	22.9	19.1	14.7
Total percent	100.0	100.0	100.0	100.0	100.0
Total N	14,880	20,456	6,772	3,692	4,756

Table 71. Relationship of household structure to age of members, age of household head, and size of household, 1968 National Demographic Survey (211).

Household structure	Age of household members						
	0-4	5-14	15-24	25-44	45-64	65+	Total
Nuclear	81.0	81.9	71.3	77.4	70.9	45.7	N = 247,356
Extended	19.0	18.1	28.7	22.6	29.1	54.3	N = 75,252
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	
Total N	50,596	98,120	60,648	69,884	34,796	8,564	322,608

	Age of household head				
	10-34	35-49	50-64	65+	Total
Nuclear	85.4	85.3	72.8	60.1	N = 42,200
Extended	14.6	14.7	27.2	39.9	N = 10,552
Total percent	100.0	100.0	100.0	100.0	
Total N	13,788	21,124	13,204	4,636	52,752

	Total number of persons in the household						No	
	1-2	3-4	5-6	7-8	9-10	11+	response	Total
Nuclear	94.2	86.8	83.1	79.3	74.1	51.5	2,480	N = 42,832
Extended	5.8	13.2	16.9	20.7	25.9	48.5	928	N = 10,620
Total percent	100.0	100.0	100.0	100.0	100.0	100.0		
Total N	2,640	11,348	15,200	11,852	5,984	3,020	3,408	53,452

Table 72. Members of the household by sex, age group, number, by urban, rural and region, 1973 (240).

				Region									
	Phil.	Urban	Rural	I Metro Manila	II Ilocos	III Cagayan	IV Central Luzon	V Southern Tagalog	VI Bicol	VII Western Visayas	VIII Eastern Visayas	IX Northern Mindanao	X Southern Mindanao
1. Mean no. of males in the household	3.10	3.11	3.09	3.07	3.16	3.07	3.29	3.01	3.00	2.94	2.96	3.27	3.25
2. Mean no. of females in the household	3.09	3.32	2.99	3.27	2.96	3.00	3.20	3.10	3.13	3.12	2.93	3.03	3.13
3. Mean no. of persons in the household	6.19	6.43	6.08	6.34	6.12	6.07	6.49	6.11	6.13	6.06	5.89	6.40	6.38
4. Mean no. of persons who have left the household permanently since 1965	1.93	1.87	1.94	2.02	1.70	2.21	1.73	1.67	1.78	1.66	2.17	1.12	1.91
5. Mean no. of persons aged 0-4 in household	1.00	0.91	1.04	0.86	0.91	0.94	1.01	0.91	1.03	0.98	1.02	1.16	1.12
6. Mean no. of persons aged 5-14 in household	1.86	1.72	1.92	1.54	1.84	1.83	1.85	1.83	2.01	1.78	1.81	2.06	2.05
7. Mean no. of persons aged 15+ in household	3.33	3.82	3.14	3.94	3.37	3.29	3.63	3.36	3.08	3.29	3.06	3.07	3.22
8. Number of unrelated persons in the household:													
a) zero	93.4	83.7	97.6	79.2	97.5	97.7	96.4	93.1	92.3	95.7	93.4	95.8	94.3
b) one	4.4	10.4	1.8	13.3	1.7	2.0	2.0	5.0	4.7	2.9	4.3	3.3	4.1
c) two +	2.2	5.9	0.6	7.5	0.8	0.3	1.6	1.9	3.0	1.4	1.9	0.9	1.6
9. No. of persons in the household	100.0	100.0	100.0										
1	1.4	1.1	1.6										
2-3	14.3	13.4	14.7										
4-5	27.2	25.6	27.9										
6-7	27.5	27.1	27.6										
8-9	18.6	19.0	18.5										
10+	11.0	13.8	9.7										

Table 73. Percentage of total households which are one-person by sex, median age, and urban-rural (239).

	1968			1973		
	Percent of total households which are one-person	Median age of male	Median age of female	Percent of total households which are one-person	Median age of male	Median age of female
Philippines	0.6	46.2	61.0	1.4	47.0	63.7
Urban	0.4	51.2	62.0	1.1	50.4	62.1
Rural	0.7	39.5	60.9	1.6	44.6	64.2

Table 74. Percentage of lot ownership among families by urban, rural and region, 1968 (240).

		REGIONS									
		I	II	III	IV	V	VI	VII	VIII	IX	X
Lot ownership	Phil.	Manila	Ilocos	Cagayan	Central Luzon	Southern Tagalog	Bicol	Western Visayas	Eastern Visayas	Northern Mindanao	Southern Mindanao
Owned	50.0	24.3	81.5	74.4	44.0	56.9	45.8	41.2	49.3	50.1	60.3
Rented	15.2	47.4	3.0	2.9	21.6	12.6	10.1	7.9	11.0	9.5	13.7
Rent-free	28.1	20.4	9.8	11.9	30.0	25.1	33.3	45.7	29.0	35.5	22.8
No response	6.7	7.9	5.7	10.8	4.4	5.4	10.8	5.2	10.7	4.9	3.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 75. Patterns of change which occurred in 369 households from 1963-1968 (8 Villages in Laguna).

	Number	Percent
A. No change at all in both size and composition	41	11
B. Patterns of increase in size		
1. More children born	153	41
2. Relatives move into the household	35	9
3. More children born plus relatives move in	14	4
C. Patterns of decrease in size		
1. Some children leave household	38	10
2. All the children leave household (only couple left)	17	5
3. Relatives leave the household	12	3
4. Children leave and relatives leave household	1	1
D. Patterns which produce either an increase, decrease, or no change in household size		
1. Some children leave the household while some children are born	30	8
2. More children born but some relatives leave the household	13	4
3. Some children leave the household but relatives move in	10	3
4. Some relatives leave, some move in	2	1
Total	366	100

Table 76. Household size in 9 countries, East and Southeast Asia and the U.S. (35, p. 7).

No. of members in households	1970 Malaysia						1971 Thailand		1973 Philippines			1970 Singapore			
	Total	Malay	Chinese	India	Rural	Urban	Rural	Urban	Total	Rural	Urban	Total	Chinese	Malay	India and Pakistan
	Percent														
1	7.0	7.1	7.0	7.4	6.7	7.6	1.8	4.0	1.4	1.6	1.1	13.1	11.1	7.0	37.0
2	7.6	7.2	6.8	7.8	7.9	7.3	4.4	7.4	5.1	5.2	4.8)	19.0	19.0	17.0	16.9
3	9.6	11.2	8.0	10.0	10.3	8.9	7.8	10.3	9.2	9.5	8.6)				
4	11.6	13.1	10.3	11.6	12.1	11.1	11.4	12.2	13.2	13.4	12.8)	34.9	36.0	34.7	25.7
5	12.1	13.0	11.0	12.4	12.3	11.8	16.0	13.6	14.0	14.5	12.8)				
6	12.0	12.9	10.9	12.6	12.2	11.8	14.0	11.4	14.6	14.8	14.0)				
7	10.4	10.2	10.3	10.6	10.3	10.5	14.6	11.9	12.9	12.8	13.1)				
8	8.7	8.2	9.1	9.0	8.7	8.7	12.7	8.8	11.2	11.0	11.8)	22.5	23.4	25.9	14.3
9	6.9	6.0	7.7	6.9	6.8	7.0	6.4	7.0	7.4	7.5	7.2)				
10	4.9	2.3	5.7	4.6	4.8	5.0	5.0	5.0	4.6	4.3	5.4)				
11	3.1	2.5	3.7	2.9	3.0	3.2	3.3	2.5	2.9	2.8	3.0)	10.5	10.4	15.4	6.1
12)	5.3)	3.3)	9.5)	4.1)	4.9)	7.0	1.5	1.9	1.6	1.2	2.5)				
13+)	)	)	)	)	)		1.8	4.0	1.8	1.3	2.7)				
Mean household size	5.60						5.70		6.19			5.35			

No. of members in household	1966 Taiwan					1971 Hong-Kong	1970 Korea			1970 Japan			1971 United States
	Total	Rural township	Urban township	Small city	Large city		Total	Rural	Urban	Total	Rural	Urban	
							Percent						
1	9.5	7.4	10.7	12.9	12.8	14.7)				10.8)	19.1	31.4	17.7
2	6.5	5.4	5.5	7.9	7.8	12.9)	9.7	8.3	11.5	15.4)			29.2
3	8.9	7.8	9.8	9.0	12.3	12.1)	46.5	42.1	52.5	19.7)			17.1
4	11.0	10.3	13.2	15.3	15.1	12.8)				25.5)	59.4	59.8	15.5
5	13.4	13.6	14.0	15.4	18.5	12.5)				14.5)			10.2
6	14.4	15.3	16.6	14.3	13.4	11.7)				8.4)	21.4	8.9	5.3
7	12.6	14.5	12.1	10.4	10.5	9.2)	41.1	46.1	34.5	3.5)		)	
8	9.1	9.8	9.1	7.9	5.1	6.4)				1.4)		)	5.0
9	5.6	6.4	3.5	2.4	2.3	3.8)				0.5)		)	
10)	9.0	9.5	5.5	4.5	2.2)	3.9)				0.2)		)	
11)					)	)	2.7	3.5	1.6	0.1)		)	
12)					)	)				)		)	
13+)					)	)				)		)	
Mean household size	5.8					4.59				3.69			3.14 (1975) 2.94

Table 77. Percentage of nuclear households among households in East and Southeast Asia.

		Total	Rural	Urban
Philippines		72.0	77.0	60.3
Thailand		52.0	52.3	51.1
Korea		72.0	67.5	76.9
Hongkong		69.0		
Japan		71.3		
Singapore		71.5		
Taiwan		65.5		
Large city		73.5		
Small city		67.6		
Urban township		64.8		
Rural township		62.3		
Malaysia	Total	88.1	Primary family unit only	
	Rural	89.04		
	Urban	87.07		
	Malay	92.4		
	Chinese	82.9		
	Indian	90.1		

Table 78. Family household arrangements and patterns of extended family assistance to and from outside the household. (Data from 8 barrios of Laguna), 1968.

Family household arrangement	Number of households	Percent
1. Nuclear - no relatives residing in the same barrio	91	23
2. Nuclear - does not give nor receive assistance from relatives outside the household	2	1
3. Nuclear - gives but does not receive assistance from relatives outside the household	1	-
4. Nuclear - receives but does not give assistance to relatives from outside the household	1	-
5. Nuclear - gives and receives assistance to and from relatives outside the household	252	63
6. Extended family household but no relatives reside in the same barrio	6	2
7. Extended family household - does not give nor receive assistance from relatives outside the household	-	-
8. Extended family household - gives but does not receive assistance to relatives outside the household	-	-
9. Extended family household - receives but does not give assistance to relatives outside the household		-
10. Extended family household - gives and receives assistance to and from relatives outside the household	31	8
No response	14	3
Total	398	100

Table 79. Shifting farmer-cultivators' choice of persons they would help first if these persons were in the same condition and equally needing help and if they were in a position to help (186 respondents) (123).

Categories of equally needy persons	Priority						
	1st	2nd	3rd	4th	5th	6th	7th
Son and daughter	165	8	0	1	0	0	0
Relatives in the same barrio	8	111	23	3	0	0	1
Closer relatives in other barrios	1	11	59	16	4	0	2
Neighbor but not relative nor close friend	1	15	29	41	4	3	6
Friend but not neighbor	0	1	7	1	38	13	5
Barriomate but not neighbor	1	2	12	7	12	38	6
Townmate	3	1	4	11	8	1	28

Table 80. Attitudes toward upbringing of children (231, 247).

	La Union			Laguna		
	Agree	Dis-agree	No ans.	Agree	Dis-agree	No ans.
	Percent					
1. Once I heard a friend say that girls do not need to study as much as boys do. Girls will get married and will stay only at home so their study is useless.	17.0	83.0	-	22.0	77.0	1.0
2. Do you think children should support their parents when they grow up?	74.0	25.0	1.0	89.0	10.0	1.0
3. Should parents have a say about the persons their children will marry?	42.0	57.0	1.0	27.0	72.0	1.0
4. Two parents are talking about their children. Which one do you think has the better idea?						
a) Children should be permitted to think independently even if this will mean they will think differently from their parents.	30.0	-	-	37.0	-	1.0
b) Children should be taught to think the way their parents think.	70.0	-	-	62.0	-	-
5. Whom do you consider as a good son or daughter?						
a) One who is honest and frank but does not always agree with his parents.	32.0	-	-	28.0	-	1.0
b) One who always follows his parents.	67.0	-	1.0	71.0	-	-
6. With which statement do you agree?						
a) The youth should listen to and obey elders of the barrio for they know things best.	31.0	-	-	47.0	-	-
b) The youth should express their opinions even when these would contradict the beliefs of the elders, for they might have some good ideas.	69.0	-	-	52.0	-	1.0

Table 81. Bukidnon lowland rice farmers' attitudes toward family labour (1972) (379 farmers) (85).

	Agree	Disagree
	Percent	
1. Children sharing in family farm work should not be paid their wages for their share of labor because they are members of the family.	78	22
2. All farm labor should be provided by members of the family and relatives.	66	34
3. Work of children on the farm is a duty.	92	8
4. Children who work on the family farm should not be given wages.	78	22
5. Children who work on the family farm should be given spending money only.	91	9
6. A farmer should not discuss important farm matters with his wife.	13	87
7. A farmer should not discuss important farm matters with his children.	18	82

Table 82. Number of households in which household work was done by others besides the wife, by activity, by position in the household (10 rural households in Laguna) (189).

Activity	Household members			Non-household member	
	Husband	Son	Daughter	Relatives	Hired
1. Feeding children aged 0-2	1		1		1[c]
2. Care of children aged 0-2 other than feeding	4	2	2	1[a]	1[c]
3. Care of children aged 3 & above	4		2		
4. Assisting children with school work	1				
5. Marketing	2		1		1[c]
6. Shopping		1	1		
7. Buying from sari-sari store	1	8	6		
8. Cooking/preparing food for household	6	3	6	2[b]	
9. Fetching water/firewood	5	4	3		
10. Feeding livestock/poultry	8	3	2		
11. Taking meals to member away from home		1	1		
12. Gardening	2				
13. Cleaning house, laundering and ironing, sewing and mending	3	4	6		

[a]Mother-in-law

[b]Same mother-in-law as in footnote (a) and in a second household, a niece

[c]Neighbor

Table 83. Time allocation and income contribution of family members by farm and nonfarm families (573 rural households in Laguna) (34).

	All families							Farm families						
	Father		Mother		Children			Father		Mother		Children		
Time in average hours per week	Hours per week	Percent of total time	Hours per week	Percent of total time	Hours per week	Percent of total time	Total	Hours per week	Percent of total time	Hours per week	Percent of total time	Hours per week	Percent of total time	Total
a) Crops	12.96	(88.6)	0.77	(5.3)	0.90	(6.2)	(100.0)	22.03	(88.6)	1.31	(5.3)	1.54	(6.1)	(100.0)
b) Fishing	1.45	(100.0)	-		-	-	(100.0)	0.43	(100.0)	-		-	-	
c) Poultry & livestock	8.58	(62.9)	3.83	(28.1)	1.24	(9.1)	(100.0)	9.84	(62.7)	4.47	(28.5)	1.38	(8.8)	(100.0)
d) Wage	22.00	(61.8)	6.20	(17.4)	7.42	(20.8)	(100.0)	15.72	(58.9)	4.29	(16.1)	6.67	(25.0)	(100.0)
e) Business & professions	2.75	(38.3)	4.05	(56.4)	0.38	(5.3)	(100.0)	2.06	(34.1)	3.76	(62.3)	0.22	(3.6)	(100.0)
f) Income producing home production	1.81	(29.0)	2.50	(41.7)	1.83	(29.3)	(100.0)	2.04	(28.5)	2.80	(39.2)	2.31	(32.3)	(100.0)
Total income earning time	49.41	(63.0)	16.9	(21.5)	12.14	(15.5)	(100.0)	52.13	(64.5)	16.33	(20.3)	12.43	(15.4)	(100.0)
g) Non-income home production	2.75	(4.7)	41.55	(70.6)	14.56	(24.7)	(100.0)	2.85	(4.7)	40.94	(67.4)	17.00	(28.0)	(100.0)
h) Child care	0.65	(4.5)	10.01	(69.4)	3.77	(26.1)	(100.0)	0.30	(2.3)	9.38	(73.1)	3.16	(24.6)	(100.0)
Total non-income time	3.44	(4.7)	51.56	(70.3)	18.33	(25.0)	(100.0)	3.21	(4.4)	50.33	(68.3)	20.16	(27.4)	(100.0)
Total hours per week	52.85	(34.8)	68.46	(45.1)	30.47	(20.1)	(100.0)	55.34	(35.8)	66.66	(43.1)	32.59	(21.1)	(100.0)
Income	Income	Percent of family income	Income	Percent of family income	Income	Percent of family income		Income	Percent of family income	Income	Percent of family income	Income	Percent of family income	
	P4099.00	(77.3)	P824.00	(14.3)	P829.00	(14.4)	(100.0)	P3552.00	(67.7)	P882.00	(16.8)	P810.00	(15.4)	(100.0)

	Non-farm families							Total hours per week spent by family		
	Father		Mother		Children					
Time in average hours per week	Hours per week	Percent of total time	Hours per week	Percent of total time	Hours per week	Percent of total time	Total	All families (Average hours per week)	Farm families	Non-farm families
a) Crops	-	-	-	-	-	-		14.63	24.88	-
b) Fishing	2.90	(100.0)	-	-	-	-	(100.0)	1.45	0.43	2.90
c) Poultry & Livestock	6.77	(63.1)	2.92	(27.2)	1.04	(9.7)	(100.0)	13.65	15.69	10.73
d) Wage	30.96	(64.0)	8.92	(18.4)	8.48	(17.5)	(100.0)	35.62	26.68	48.36
e) Business and professions	3.73	(42.4)	4.45	(50.6)	0.61	(6.9)	(100.0)	7.18	6.04	8.79
f) Income producing home producting	1.49	(30.2)	2.30	(46.7)	1.14	(23.1)	(100.0)	6.24	7.15	4.93
Total income earning time	45.53	(60.7)	17.72	(23.6)	11.72	(15.6)	(100.0)	78.45	80.89	74.97
g) Non-income home production	2.62	(4.7)	42.41	(75.6)	11.08	(19.8)	(100.0)	58.86	60.79	56.11
h) Child care	1.15	(6.9)	10.91	(65.3)	4.64	(27.8)	(100.0)	14.43	12.84	16.70
Total non-income time	3.76	(5.2)	53.32	(73.2)	15.73	(21.6)	(100.0)	73.33	73.70	72.81
Total hours per week	49.29	(33.4)	71.04	(48.1)	27.45	(18.6)	(100.0)	151.78	154.59	147.78
Income	Income	Percent of family income	Income	Percent of family income	Income	Percent of family income		Total family income		
	P4881.00	(75.3)	P741.00	(11.4)	P857.00	(13.2)	(100.0)	P5773.00	P5244.00	P6479.00

Table 84. Persons consulted by farmers on farm business matters (175).

Farm business decisions	Percent of farmers who would consult with: Wife N = 395	Landlord or overseer N = 395	Extension workers N = 395	Other specialists N = 395
1. Buying fertilizer	62	52	37	5
2. Where to sell agricultural products	69	4	-	-
3. Engaging in a new enterprise	78	2	2	-
4. Buying a carabao	83	7	0.2	-
5. Buying farm tools and equipment	75	6	6	-
6. Buying farm chemicals	67	41	48	4
7. Where to borrow money	84	25	12	-
8. Adopting new rice varieties	60	52	40	3
9. Changing rice cultural practices	58	50	40	8

Table 85. Decision-making patterns in 472 farm households, 36 barrios in Laguna, 1968.

Decision-maker	No. of households	Percent
1. Family decisions dominated by wife	69	15
2. Family decisions dominated by husband	20	4
3. All decisions done by both	48	10
4. Husband and wife had independent as well as joint decisions	335	71
Total	472	100

Table 86. Types of decisions made by wife, husband or both (182).

	Wife		Husband		Both		Total	
	No.	%	No.	%	No.	%	No.	%
Financial	237	41.7	51	9.1	280	49.2	568	100.0
Percent	38		14		36			
Household chores	237	100.0	-	-	-	-	237	100.0
Percent	38		-		-			
Farming and livelihood	92	14.6	276	43.7	263	41.7	631	100.0
Percent	15		76		34			
Children	42	19.3	23	10.6	152	70.1	217	100.0
Percent	7		6		20			
Socializing	9	16.6	14	26.0	31	57.4	54	100.0
Percent	2		4		4			
Family housing	-		-		48	100.0	48	100.0
Percent	-		-		100			
Total	617/100		364/100		774/100		1755	100.0

Table 87. Participation of husband, wife and children in decisions made by 290 farm households in six barrios of Nueva Ecija, 1975 (287).

Area of decision	Percent of total respondents mentioning the participant decision-maker for each decision area			
	Farmer	Wife	Older children	Others
1. To apply for production loans	85.0	37.6	3.3	2.1
2. To ask children to stay at home instead of going to school during peak of farming activities	64.8	45.6	2.8	3.5
3. Disposal of rice harvest	78.8	46.0	2.8	1.7
4. To call a doctor when a member of the family is sick	71.8	55.1	3.5	1.4
5. How much money to allocate for food and what to buy	31.4	76.3	4.2	1.4
6. How much money to allocate for clothes	24.7	86.8	1.7	1.4
7. To buy a radio	52.3	50.2	7.7	1.7
8. What furniture to buy	28.6	84.7	7.3	2.8

Table 88. IPC/PSSC national survey respondents classified by decision-maker(s) mentioned for different family members (Nov. 1973-April 1974) (276).

	Discipline of male children	Discipline of female children	Choice of school	Choice of course of study	Choice of child's friends	Family budget expenses	Family investments/ business
				- Percent -			
Husband and wife/ father and mother	43	46	44	18	9	26	43
Husband/father	37	15	14	8	2	11	32
Wife/mother	17	36	16	6	5	60	21
Child only	-	-	17	54	71	-	-
Others (eldest son, brother/sister/ daughter)	2	3	-	1	-	3	4
Both parents and children	-	-	9	12	12	-	-
Total	99	100	100	99	99	100	100
Total N	2960	2940	3127	3095	3134	3431	1913

Table 89. Percentage of females single by age and mean ages at marriages: 1903-1973 (240, 304).

Age Group	Year					
	1903	1939	1948	1960	1970	1973
			- Percent Single -			
15 - 19	73.6	80.3	85.1	87.3	89.2	91.5
20 - 24	33.3	36.2	40.7	44.3	50.3	55.9
25 - 29	15.6	15.7	18.8	19.5	21.5	24.8
30 - 34	15.6	15.7	12.6	11.6	11.7	13.7
35 - 39	9.4	7.4	9.5	8.1	8.0	7.3
40 - 44	9.4	7.4	8.7	7.6	7.3	5.9
45 - 49	7.8	5.8	6.9	7.0	6.7	6.8
Mean Age at Marriage	20.9	21.9	22.1	22.3	22.8	23.4

Table 90. Mean ages at marriage (SMAM) by sex, urban-rural residence and region, May 1973.

Region	Female			Male			Percent single among females aged 50-54	
	Total	Urban	Rural	Total	Urban	Rural	Urban	Rural
	- Percent -							
Philippines	23.7	25.2	22.3	25.7	27.3	24.8	10.3	5.9
I - Metro Manila	24.5	24.5	-	27.6	27.6	-	20.2	-
II - Ilocos and Mt. Province	22.6	25.9	21.7	24.9	29.9	24.0	4.3	7.6
III - Cagayan Valley	20.1	21.8	20.3	23.5	23.6	23.4	0.0	18.7
IV - Central Luzon	24.4	26.1	23.8	26.0	27.8	25.5	4.7	7.5
V - Southern Luzon	24.0	25.8	22.4	25.2	26.8	24.0	5.3	5.2
VI - Bicol	24.6	28.0	23.3	26.1	29.0	25.7	2.9	3.1
VII - Western Visayas	23.1	25.2	20.4	26.2	27.2	25.9	0.0	8.4
VIII - Eastern Visayas	22.7	23.8	22.1	25.2	27.1	24.6	18.6	3.1
IX - Northern Mindanao	22.3	24.6	21.6	25.2	27.2	25.0	0.0	5.9
X - Southern Mindanao	22.5	26.2	21.5	25.1	26.9	24.6	0.0	4.3

Table 91. Percentage of wives and husbands of specified education marrying spouse of similar, higher and lower educational attainment (307).

Educational Level	Percent of Wives Marrying Spouse of Given Educational Attainment			Percent of Husbands Marrying Spouse of Given Educational Attainment		
	Same	Lower	Higher	Same	Lower	Higher
1. No schooling	57.4	-	42.6	49.8	-	50.2
2. 1 - 4 years	53.0	14.0	33.0	57.6	16.6	25.8
3. 5 - 7 years	43.0	32.7	24.3	49.1	40.7	10.2
4. 1 - 3 years high school	26.6	43.2	30.3	25.5	64.8	9.8
5. High school graduate	30.4	38.2	31.4	20.1	64.7	15.2
6. 1 - 3 years college	19.8	51.4	28.8	19.3	66.4	14.2
7. 4+ years college	55.6	44.4	-	46.5	53.5	-
All levels	46.8	22.9	30.3	46.8	30.3	22.9

Table 92. Age at marriage, life expectancy, and duration of marriage for couples marrying in 1939 and 1973.

	1939	1973
1. Singulate mean age at marriage for females	21.9 years	23.7 years
2. Mean birth date of females who married in years 1939 and 1973	1917	1950
3. Life expectancy at birth of women who married in 1939 and 1973	26.07 years	53.36 years
4. Life expectancy at birth of men who married in 1939 and 1973	25.17 years	48.81 years
5. Estimated duration of marriage with both spouses surviving (taking into account the difference in life expectancy between males and females) ...	3.27 years	25.11 years
6. Estimated years of widowhood .	0.90 years	4.55 years

Table 93. Average number of children ever born per woman, aged 45-49, by place of residence, educational status, current work experience, type of neighbourhood, age at marriage, literacy status and household structure, NDS 1973 (93).

1. Place of Residence
   - Total 6.4
   - Urban 5.9
   - Rural 6.6

2. Employment of Women
   - Yes 6.1
   - No 6.5

3. Type of Neighborhood Origin
   - Agricultural 6.5
   - Non-Agriculture .. 6.1

4. Age at Marriage
   - -15 ..... 7.9
   - 15 - 19 ..... 7.3
   - 20 - 24 ..... 6.5
   - 25 - 29 ..... 4.8
   - 30 - 34 ..... 3.1
   - 35 - 39 ..... 2.7
   - 40+ 0.3

5. Literacy Status
   - Read and write 6.5
   - Read only 6.1
   - Neither read nor write 6.2

6. Household Structure
   - Nuclear 6.7
   - Extended, except vertical, younger generation only 5.4
   - Extended vertical, younger generation only 5.9

7. Educational Status
   - No Schooling 6.1
   - Elementary 6.7
   - High School 6.3
   - College Training 5.6
   - College Degree 4.6

Table 94. Total fertility rates, per woman, Philippines, and by region, 1958-1972 (92).

Region	Period		
	1958-1962	1963-1967	1968-1972
Philippines	6.46	6.30	5.89
I - Greater Manila	3.86	4.40	4.08
II - Ilocos and Mt. Province	6.36	6.44	5.52
III - Cagayan Valley	6.49	7.18	5.98
IV - Central Luzon	6.38	5.94	5.75
V - Southern Luzon	6.09	5.92	5.23
VI - Bicol	6.95	7.01	6.25
VII - Western Visayas	6.30	5.87	5.91
VIII - Eastern Visayas	6.31	6.38	6.33
IX - Northeastern Mindanao	7.50	7.76	7.40
X - Southwestern Mindanao	7.61	7.30	7.01

Table 95. Enrolment in all levels of education in public and private schools by sex, school year 1970-71. (Excluding enrolment in public vocational schools and state universities and colleges) (272).

	Both Sexes	Percent	Male	Percent	Female	Percent
Public Schools						
T o t a l	7,194,522	100.0	3,700,317	51.4	3,494,205	48.6
Primary	4,894,157	100.0	2,548,945	52.1	2,345,212	47.9
Intermediate	1,661,726	100.0	831,758	50.1	829,968	49.9
Secondary	638,639	100.0	319,614	50.1	319,025	49.9
Private Schools						
T o t a l	1,932,013	100.0	933,925	48.3	998,088	51.7
Kindergarten	50,196	100.0	25,520	50.9	24,676	49.1
Primary	322,276	100.0	122,643	38.1	199,633	61.9
Intermediate	98,968	100.0	48,683	49.1	50,285	50.9
Secondary	956,402	100.0	478,558	50.1	477,844	49.9
Collegiate	567,571	100.0	252,754	44.5	314,817	55.5
Graduate course	16,600	100.0	5,767	34.8	10,833	65.2
Public Vocational Schools						
T o t a l	100,438	100.0	60,140	62.8	40,297	37.2
Agriculture	35,826	100.0	21,499	60.0	14,327	40.0
Fishery	11,380	100.0	5,947	52.3	5,433	47.7
Trade	61,032	100.0	40,595	66.5	20,437	33.5

Table 96. Total number of graduates from private schools by educational level, and percentage female 1965-1970 (265, p. 14).

Level of education	Total number of graduates					Percent female				
	1965-66	1966-67	1967-68	1968-69	1969-70	1965-66	1966-67	1967-68	1968-69	1969-70
Kindergarten	27,121	30,196	32,323	38,515	39,422	50.5	49.7	48.8	48.5	48.9
Elementary	Data incomplete	37,820	37,136	42,521	43,833	*	47.2	52.4	52.3	51.7
Secondary	126,584	145,679	133,272	149,170	150,070	52.6	53.6	52.9	52.5	52.7
Special vocational	17,115	Data incomplete	39,554	48,603	48,110	39.5	*	62.2	63.8	63.6
Collegiate	81,622	86,555	84,502	83,628	97,336	48.5	65.5	64.4	65.3	63.9
Total	268,288	310,203	326,787	362,437	378,771	53.3	54.2	56.6	56.5	56.5
Major field of study in college										
1. Agriculture	464	548	714	523	589	8.6	9.1	10.4	5.7	6.5
2. Chemistry	553	686	253	357	220	96.9	79.9	60.4	69.2	74.5
3. Commerce and business administration	15,179	14,665	14,800	24,199	27,702	54.4	52.1	51.7	55.3	55.9
4. Engineering and technology	4,167	5,343	4,588	4,442	5,465	7.2	8.1	8.3	5.4	5.7
5. Food nutrition & dietetics	997	1,340	910	786	872	99.7	99.8	99.1	100.0	99.8
6. Law and foreign service	1,288	1,493	1,363	1,261	1,643	8.6	15.9	15.8	15.5	15.9
7. Liberal arts and sciences	8,017	8,632	9,375	7,724	13,835	48.5	53.6	50.1	57.8	59.4
8. Medical sciences	4,698	5,441	4,269	2,948	3,756	47.9	79.5	85.5	83.5	83.6
9. Music and fine arts	579	622	527	619	724	27.9	33.6	31.3	26.7	24.0
10. Nautical science	526	522	393	652	695	*	1.3	0.0	0.3	0.3
11. Teacher training	44,859	46,868	46,831	39,616	41,151	50.5	79.0	77.4	82.7	80.3
12. Graduate studies	295	365	479	501	694	54.6	59.4	68.1	62.9	62.2
Masteral	278	337	463	473	634	56.8	61.4	68.5	63.8	63.8
Doctoral	17	28	16	28	60	17.6	35.7	56.3	46.4	45.0

Table 97. Percentage distribution and percentage female enrolment in all schools of higher education by major field of study, school year 1968-1969; 1970-71; 1971-72 (33; 51; 190, p. 29; 308, p. 34).

Fields of study	1968-69			1970-71			1971-72			Percent female		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	1968-69	1970-71	1971-72
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	55.5	55.6	55.7
Agriculture	1.3	2.3	0.4	1.76	3.09	0.7	2.0	3.45	0.84	18.0	22.0	23.4
Chemistry	0.6	0.7	0.5	0.40	0.19	0.57	0.45	0.21	0.65	48.4	78.6	79.7
Commerce and business administration	28.4	31.9	25.4	35.7	35.4	35.9	38.11	36.43	39.44	49.7	56.0	57.6
Engineering & technology	9.7	20.6	9.7	10.2	21.6	1.12	12.08	25.14	1.69	5.5	6.1	7.8
Food nutrition & dietetics	0.9	*	1.6	0.92	0.02	1.64	0.95	0.02	1.70	100.0	99.3	98.9
Law & foreign service	2.5	4.9	0.6	2.41	4.67	0.60	2.28	4.41	0.56	13.1	13.9	13.8
Liberal arts & sciences	17.4	16.2	18.5	18.2	16.9	19.3	18.8	16.6	20.6	58.5	58.7	60.9
Medical sciences	-	-	-	5.02	1.8	7.54	4.93	1.63	7.57	-	83.5	85.4
Medicine	1.1	1.4	0.9)							43.7		
Nursing and midwife	2.2	0.1	3.9)							96.9		
Pharmacy	0.3	*	0.6)							93.3		
Dentistry	0.2	0.1	0.2)							61.4		
Music and fine arts	1.2	2.0	0.5	1.26	2.24	0.48	1.11	1.89	0.48	24.0	21.1	24.2
Nautical sciences	0.5	1.2	*	0.55	1.21	0.02	0.83	1.52	0.28	2.5	2.4	19.0
Teacher training	31.4	16.6	43.2	20.28	10.07	28.4	14.65	6.17	21.4	76.5	78.0	81.3
Graduate studies	2.3	1.8	2.6	3.25	2.61	3.64	3.78	2.52	4.79	63.3	62.2	70.4
Masteral	-	-	-	3.13	2.48	3.52	3.71	2.46	4.71	-	62.5	70.6
Doctoral	-	-	-	0.12	0.13	0.12	0.07	0.06	0.08	-	53.8	61.8

*Less than 1 percent.

Table 98. Physicians by sex and age (1970).

Ages	Both sexes		Male		Female		Not indicated sex	Percent
	No.	Percent	No.	Percent	No.	Percent		
Below 30	1,378	100.0	659	47.8	711	51.6	8	0.6
30 - 34	1,598	100.0	909	56.9	683	42.7	6	0.4
35 - 39	1,315	100.0	915	69.6	394	30.0	6	0.4
40 - 44	1,012	100.0	751	74.2	256	25.3	5	0.5
45 - 49	591	100.0	458	77.5	129	21.8	4	0.7
50 - 54	481	100.0	353	73.4	122	25.4	6	1.2
55 - 59	458	100.0	380	83.0	72	15.7	6	1.3
60 - 64	309	100.0	282	91.3	27	8.7	0	0.0
65 and over	286	100.0	273	95.5	10	3.5	3	1.0
Not indicated	91	100.0	59	64.8	27	29.7	5	5.5
Total	7,519	100.0	5,039	100.0	2,431	100.0	49	
			Male 67.7%		Female 32.3%		0.7%	

Table 99. Physicians registered with the Board of Medical Examiners, by year of registration and sex, 1930-1969 (194)

Year of registration	Both sexes	Male	Female	Percent female
Before 1930	2,555	2,490	65	2.5
1930-1934	1,093	1,041	52	4.8
1935-1939	1,599	1,330	269	16.8
1940-1944	1,433	1,055	378	26.4
1945-1949	1,060	748	312	29.4
1950-1954	1,831	1,327	504	27.5
1955-1959	5,811	3,917	1,894	32.6
1960-1964	6,888	4,124	2,764	40.1
1965-1969	7,150	4,039	3,111	43.5

Table 100. Philippine Labour Force Participation Rates (LFPR) by sex and educational attainment, October 1965 (50).

Educational attainment	Both sexes			Males			Females		
	All persons 10 yrs. and above	In the labor force	LFPR	All persons 10 yrs. and above	In the labor force	LFPR	All persons 10 yrs. and above	In the labor force	LFPR
1. No grade completed	2,500	1,522	60.9	1,081	897	83.0	1,419	625	44.0
2. Up to elementary Grade 5 only	9,199	4,402	47.9	4,585	3,011	65.7	4,614	1,391	30.1
3. Completed elementary to 3rd year high school	5,995	3,189	53.2	2,970	2,139	72.0	3,025	1,050	34.7
4. Completed high school to 3rd year college	1,936	1,117	57.7	1,090	825	75.7	846	292	34.5
5. 4th year college and higher	628	535	85.2	315	285	90.5	313	250	79.9
6. Total	20,260	10,764	53.1	10,043	7,156	71.3	10,217	3,608	35.3

Table 101. Percentage of males and females who are in the labour force of the population in the various educational levels in rural and urban areas of the Philippines, May, 1968 (233).

Educational Levels	Males		Females	
	Urban	Rural	Urban	Rural
All educational levels	69.3	82.0	40.9	46.9
Low Level	63.4	81.5	37.0	46.3
No schooling	70.3	83.8	40.1	51.1
Primary	56.8	76.4	34.9	44.4
Intermediate	56.5	86.2	39.1	45.8
High school, not graduated	64.4	83.3	34.7	45.8
High level	81.8	87.8	51.4	56.5
High school graduate	85.3	92.3	41.7	51.7
College undergraduate	72.0	75.5	42.2	44.7
College degree and above	94.2	98.0	82.6	83.3
Median years of schooling of those in the labor force	8.0	5.0	6.9	4.6

Table 102. Gross years of active life* by educational attainment of males and females, Philippines, 1968 (233, 240).

	Ages							
	Males				Females			
All educational levels	10-64	15-64	20-64	25-64	10-64	15-64	20-64	25-64
	48.6	46.8	43.1	38.7	26.6	25.6	23.0	20.3
No schooling	49.3	47.0	43.3	38.8	29.4	28.0	25.2	22.3
Primary	49.7	48.0	43.5	38.7	27.3	26.4	23.1	20.6
Intermediate	49.8	48.0	43.6	38.6	24.4	23.3	20.2	17.4
High school not graduated	47.6	45.8	42.7	38.2	24.5	23.6	21.5	18.6
High school graduate	47.8	46.1	42.7	38.3	-	21.4	19.3	16.5
College undergraduate	-	42.7	40.7	37.5	-	25.1	23.8	21.8
College degree and above	-	47.9	43.6	39.1	-	41.5	38.5	34.0

*Gross years of active life refers to the average number of economically active years for those persons out of a generation who do not die before retirement age. It measures the expected active years of a generation of men from the time they enter the labour scene to the time they return to inactive economic life.

Table 103. Proportion of females 10 years old and over by types of activity, Metropolitan Manila, rural-urban, 1970 (81).

	Employed	Un-Employed	House-keepers	Students	Others	Not Stated
Philippines						
12,831,489	3,464,316	464,416	6,120,087	736,660	2,013,365	32,645
Percent of Total 100.0	27.0	3.0	48.0	6.0	16.0	*
Metropolitan Manila						
1,667,260	521,124	44,920	713,727	131,245	255,293	951
Percent of Total 100.0	31.0	3.0	43.0	8.0	15.0	*
Urban						
4,406,197	1,314,469	135,851	1,920,288	317,021	710,056	8,512
Percent of Total 100.0	30.0	3.0	44.0	7.0	16.0	*
Rural						
8,425,292	2,149,847	328,565	4,199,799	419,639	1,303,309	24,133
Percent of Total 100.0	26.0	4.0	50.0	5.0	15.0	*

*Less than 1.0 percent.

Table 104. Source of income within household by region, by rural-urban, farm, nonfarm (National Demographic Survey, 1968).

	Total Households (in 100's)	Type I Husband is Sole Source of Income	Type II Wife is a Source of Income	Type III Unmarried Children and/or Other Relatives are a Source of Income
		- Percent* -		
Philippines	50,128	45.3	42.9	23.4
Urban	15,040	45.3	41.0	23.2
Rural	35,088	45.3	43.8	23.5
Residence				
Farm	25,720	45.4	44.8	23.1
Non-Farm	24,028	45.3	40.6	24.0
Region				
I - Greater Manila		53.6	33.7	18.7
II - Ilocos and Mt. Province		41.0	46.3	33.6
III - Cagayan Valley and Batanes		44.3	51.5	10.3
IV - Central Luzon		41.0	43.4	27.0
V - Southern Luzon		51.7	34.4	22.4
VI - Bicol		46.4	35.8	31.4
VII - Western Visayas		35.8	51.1	25.6
VIII - Eastern Visayas		45.8	47.3	16.5
IX - Northeastern Mindanao		52.0	41.5	16.7
X - South Mindanao and Sulu		42.8	46.3	28.9

Table 105. Sources of income for nuclear family, 1968 (240).

Sources	Percent of Households
Husband only	41.9
Husband and wife only	24.0
Husband, wife, and unmarried children and/or other relatives only	7.7
Husband and unmarried children and/or other relatives only	8.8
Wife and unmarried children and/or other relatives only	3.1
Wife only	5.0
Unmarried children only	1.6
Unmarried children and other relatives only	0.2
From other relatives only	0.3
No response	7.5

Note: 81.3% of Filipino households are single family households. Only 7.7 percent of households had a female household head.

Table 106. Main activity of married women 15 years or over by region, rural and urban, 1973 (240).

	Phil.	Urban	Rural	Regions I	II	III	IV	V	VI	VII	VIII	IX	X
								- Percent -					
Main activity													
a) Working	25.1	30.4	22.7	28.5	34.2	16.1	19.2	30.5	24.2	23.2	30.8	22.5	19.5
b) Housekeeping	70.7	64.1	73.8	65.5	59.6	81.6	74.6	66.0	71.5	72.1	66.7	73.9	77.7
c) Studying	0.3	0.6	0.2	0.7	2.3	0.0	0.4	0.1	0.2	0.3	0.0	0.0	0.2
d) Nothing	2.9	3.8	2.6	4.4	2.2	1.9	4.0	2.8	3.5	3.9	2.0	2.7	1.9
e) Other	0.7	0.9	0.6	0.5	1.7	0.3	1.4	0.5	0.7	0.4	0.5	0.5	0.7
f) No information	0.2	0.2	0.1	0.4	0.0	0.0	0.4	0.1	0.2	0.1	0.0	0.4	0.0
Where main activity take place													
a) In the household	79.9	75.2	82.1	77.9	69.5	83.8	83.9	76.6	85.5	82.8	77.8	77.6	82.2
b) Outside the household	19.7	24.4	17.6	21.5	30.2	16.2	15.7	23.2	14.2	16.6	21.9	21.8	17.6
c) No information	0.3	0.4	0.3	0.6	0.3	0.0	0.4	0.2	0.3	0.6	0.3	0.6	0.2

Table 107. Time spent and income earned by ever-married females 15 years and over on main activity and other activities by region, rural and urban, 1973 (240).

	Phil.	Urban	Rural	Regions I	II	III	IV	V	VI	VII	VIII	IX	X
								- Percent -					
Days spent on main activity last month													
a) 0-14 days	12.2	7.6	14.4	5.0	21.7	6.9	12.4	10.3	12.1	14.5	17.5	16.2	7.4
b) 15-21 days	11.0	9.5	11.7	11.0	14.4	12.0	7.6	8.6	7.1	14.5	12.5	14.2	11.5
c) 22-28 days	19.4	21.7	18.3	27.7	26.9	7.6	22.1	14.4	19.1	21.5	16.2	17.7	19.6
d) 29 days or more	56.8	60.6	55.0	55.7	36.7	73.1	57.3	66.2	61.2	48.8	53.2	50.6	60.7
e) No information	0.6	0.6	0.6	0.6	0.3	0.4	0.6	0.5	0.5	0.7	0.6	1.3	0.8
Hours per day spent on main activity last month													
a) Less than 2 hours	4.0	1.8	4.9	0.6	9.3	0.7	4.5	2.6	1.2	2.8	6.9	7.7	3.1
b) 2-4 hours	16.1	11.7	18.2	8.4	20.0	14.3	16.2	12.1	19.2	17.2	20.9	17.6	16.5
c) 5-8 hours	29.7	31.3	29.0	35.7	33.9	22.4	34.0	29.2	24.8	30.2	30.2	26.7	24.9
d) More than 8 hours	49.6	54.5	47.4	54.6	35.9	62.2	44.9	55.7	54.5	49.2	41.4	46.7	54.7
e) No information	0.6	0.7	0.5	0.7	0.9	0.4	0.4	0.4	0.3	0.6	0.6	1.3	0.8
Have other activities besides main activity													
a) Yes	16.7	10.6	19.5	4.4	22.1	9.3	18.5	19.0	10.9	12.0	26.3	21.0	14.7
b) No	81.5	88.1	78.5	94.3	77.0	90.7	77.5	80.1	85.6	86.5	71.2	77.2	85.1
c) No information	1.8	1.3	2.0	1.3	0.9	0.0	4.0	0.9	3.5	1.5	2.5	1.8	0.2
Total cash income in 1972													
a) Less than P1000	85.8	72.3	91.8	70.7	92.3	96.0	83.2	80.6	85.3	90.9	89.0	86.5	90.4
b) P1000-P2999	6.9	12.2	4.5	13.0	4.1	2.1	8.0	8.1	8.4	4.8	5.9	7.2	4.5
c) P3000-P9999	5.8	12.7	2.8	13.0	2.5	1.3	6.7	8.5	6.0	3.5	4.1	5.3	4.7
d) P10,000 +	0.3	0.7	0.1	0.7	0.6	0.0	0.3	0.4	0.0	0.3	0.2	0.1	0.0
e) No information	1.2	2.1	0.8	2.6	0.5	0.6	1.8	2.4	0.3	0.5	0.8	0.9	0.4
Estimated non-cash income in 1972 of the 19 percent who received non-cash income													
a) Less than P500	50.1	48.0	50.9	65.9	50.1	37.2	37.3	25.7	46.5	66.7	56.4	50.4	45.8
b) P 500-P3999	13.9	18.0	12.4	11.7	10.8	4.6	20.7	10.2	18.6	7.1	13.5	17.9	16.4
c) P4000-P4999	0.8	1.5	0.5	0.8	0.0	0.0	2.6	0.0	0.0	0.0	0.9	1.4	0.0
d) P5000+	0.4	0.9	0.2	1.1	2.1	0.0	0.3	0.0	0.0	0.0	0.0	0.7	0.0
e) No information	34.8	31.6	35.9	20.5	37.0	58.2	39.1	64.1	34.9	25.2	29.2	29.6	37.8

Table 108. Attitudes toward women by sex (1976) (National Survey) (91).

	Females				Males			
	Strongly disagree and disagree	Don't know and neutral	Strongly agree and agree	Total N (1595)	Strongly disagree and disagree	Don't know and neutral	Strongly agree and agree	Total N (399)
	- Percent -				- Percent -			
1. If a man can afford it, he should not allow his wife to work.	24	2	74	100	16	2	82	100
2. If a man and a woman are equally qualified for a job, the man should be given the position.	30	4	66	100	21	4	75	100
3. On jobs which do not require physical strength, women do just as well as men.	16	4	80	100	19	4	77	100
4. Most women are better off in the home than in a job or profession.	27	4	69	100	19	3	78	100
5. Married women cannot make long-range plans for their job or career because it depends on their husband's plans.	37	8	55	100	29	7	64	100
6. People think less of a man if his wife works.	49	7	44	100	42	4	55	100
7. Even if a woman can support herself, it is still better for her to get married.	13	5	82	100	6	5	89	100
8. A mother's working outside the home has a good effect on her children.	49	10	41	100	50	11	39	100
9. A girl becomes fully a woman only when she bears her own children.	18	5	77	100	17	4	79	100

Table 109. Husband-wife responses to value statements regarding male-female roles and expectations (Bicol River Basin, Camarines Sur, Nov.-Dec. 1976) (180).

Value Statement	Response	Husband	Wife	N
		- Percent -		
1. Women think less clearly than men and are more emotional.	Agree	61	48	
	Neutral	13	16	240
	Disagree	26	36	
2. Married women cannot make long-range plans for their job because it depends on their husband's plans.	Agree	71	71	
	Neutral	11	10	240
	Disagree	18	19	
3. It is somehow unnatural to place women in positions of authority over men.	Agree	48	52	
	Neutral	12	13	239
	Disagree	40	35	
4. Even today women live under unfair restrictions that ought to be done away with.	Agree	63	61	
	Neutral	15	15	239
	Disagree	22	24	
5. Women should take an active interest in politics and in community programs as well as in their families.	Agree	72	75	
	Neutral	9	8	241
	Disagree	19	17	
6. In choosing a husband, a woman will do well to put ambition at the top of her list of desirable qualities.	Agree	71	80	
	Neutral	9	8	240
	Disagree	20	12	
7. The most important qualities of a real man are determination and driving ambition.	Agree	83	80	
	Neutral	7	10	238
	Disagree	10	10	
8. The husband should have the main say in family matters.	Agree	86	83	
	Neutral	8	8	240
	Disagree	6	9	
9. A man who does not provide well for his family ought to consider himself pretty much a failure as husband and father.	Agree	73	71	
	Neutral	9	8	240
	Disagree	17	21	
10. If a man can afford it, he should not allow his wife to work.	Agree	80	78	
	Neutral	5	6	241
	Disagree	15	16	
11. People think less of a man if his wife works.	Agree	51	45	
	Neutral	8	10	240
	Disagree	41	45	
12. Almost any woman is better off in the home than in a job or profession.	Agree	61	64	
	Neutral	10	10	239
	Disagree	29	26	

Table 109. (Cont.)

13. Infidelity is the worst fault a husband could have.	Agree	76	87	
	Neutral	5	2	240
	Disagree	19	11	
14. A man should not be expected to have respect for a woman if they have sexual relations before they are married.	Agree	27	33	
	Neutral	13	12	236
	Disagree	60	55	
15. It is a woman's job more than a man's to uphold our moral code, especially in sexual matters.	Agree	67	71	
	Neutral	16	10	238
	Disagree	17	19	
16. The unmarried mother is morally a greater failure than the unmarried father	Agree	60	66	
	Neutral	19	13	240
	Disagree	21	21	

Table 110. Filipino youth 10 to 19 years old by type of activity, rural-urban, sex, 1970 (81).

	Percent	Employed	Un-employed	Looking for work for the first time	House-keeper	Student	Others	Not stated
Urban								
Both sexes								
N = 2,565,336	100.0	18.1	3.5	(2.7)	17.7	19.9	40.7	0.1
Male								
N = 1,188,055	100.0	17.0	4.4	(3.4)	7.5	21.5	49.5	0.1
Female								
N = 1,377,281	100.0	19.1	2.7	(2.2)	26.4	18.6	33.1	0.1
Rural								
Both sexes								
N = 5,410,149	100.0	27.5	3.9	(2.8)	20.1	13.9	34.4	0.2
Male								
N = 2,734,128	100.0	36.6	4.1	(2.7)	6.1	13.9	39.2	0.1
Female								
N = 2,676,021	100.0	18.1	3.8	(2.9)	34.4	13.9	29.6	0.2
Total Philippines 7,975,485								

Table 111. Major occupation of youths 10-19 years old by sex, rural and urban, 1970 (81).

Major occupation	Total N	Urban male 213,992	Urban female 269,373	Rural male 1,088,939	Rural female 442,821
			Percent		
1. Professional, technical and related workers		0.7	0.5	0.1	0.3
2. Administrative, executive and managerial workers		0.1	0.1	0.0	0.1
3. Clerical workers		1.2	1.7	0.1	0.4
4. Sales workers		8.8	8.4	1.2	4.3
5. Farmers, farm workers, fishermen, hunters, loggers and related workers		34.9	4.1	87.7	52.4
6. Miners, quarrymen and related workers		0.3	0.0	0.1	0.0
7. Workers in transport and communication		6.7	0.2	1.5	0.0
8. Craftsmen, production process workers		16.0	9.8	3.6	17.4
9. Service, sport and related workers		19.0	71.2	2.5	21.3
10. Stevedores, and related freight handlers and laborers		6.9	0.4	1.6	0.3
11. Occupation and unidentifiable, members of Armed Forces		0.7	0.2	0.1	0.3
12. Not stated		4.7	3.4	1.5	3.2
Total		100.0	100.0	100.0	100.0

Table 112. Filipino youths' attitudes toward education by in-school and out-of-school status (87).

	Percent of total respondents who partly or strongly agree with each item	
	Out-of-school	In-school
1. One who can go to school but does not is a burden to his family.	62	65
2. It is wrong for parents to stop their children from going to school.	56	57
3. When one is of school age, his most important job is to go to school.	83	84
4. One must have an education to be successful in life.	91	93
5. An educated person is always respected in the community.	83	85
6. You may not have gone to school but if you know a big shot you can get a good job.	65	62
7. The subjects one studies in school are often practical and useful.	60	59
8. Teachers in school often know the true condition.	44	45
9. What is taught in schools today is not old-fashioned and irrelevant.	67	69
10. Attending school is not a waste of time and energy.	84	86
Weighted sample size	(651,037)	(262,491)

Table 113. Youths' general attitudes toward education expressed in scores,* by region, in-school and out-of school (87).

Out-of-school youth	Manila I	Ilocos II	Cagayan Valley III	Central Luzon IV	Southern Tagalog V	Bicol VI	West Visayas VII	Eastern Visayas VIII	South-western Mindanao IX	North-eastern Mindanao X
Education as an obligation	3.054	2.802	2.966	2.869	2.636	2.807	2.593	2.947	3.006	3.052
Education as a source of rewards	3.261	3.113	3.211	3.120	3.116	2.560	2.658	2.511	2.587	2.549
Education as relevant to reality	2.667	2.451	2.586	2.706	2.484	2.542	2.721	2.668	2.708	2.764
In-school youth										
Education as an obligation	3.124	2.910	2.966	2.810	2.639	2.939	2.725	2.907	3.002	3.110
Education as a source of rewards	3.325	3.194	3.632	3.101	3.110	2.697	2.719	2.562	2.584	2.660
Education as relevant to reality	2.675	2.666	2.470	2.701	2.740	2.758	2.802	2.655	2.769	2.759

*Scores were based on responses to items in Table 3.

Table 114. Youths' assessment of educational competence expressed in scores by region, in-school and out-of-school.

Out-of-school youth	2.595	2.303	2.447	2.538	2.581	2.484	2.607	2.416	2.496	2.498
In-school youth	2.731	2.726	2.537	2.578	2.592	2.624	2.574	2.364	2.506	2.651

Table 115. Youths' educational aspirations and perceptions of their parents' educational aspirations for them (87).

Level of education	Out of school youths	Father	Mother	In-school youths	Father	Mother
		Percent			Percent	
1. Do not know	-	6	4	-	4	2
2. Does not care how much	-	10	9	-	4	4
3. Does not want me to go to school	-	1	1	-	-	-
4. Finish grade school	5	6	6	2	3	3
5. Finish high school	17	19	18	11	18	18
6. Go to vocational school	26	16	18	12	13	13
7. Some college	11	6	6	15	12	12
8. Finish college	40	35	37	59	45	47
9. Go to graduate school	1	1	1	1	1	1

Table 116. Filipino youths' sense of personal competence by in-school and out-of-school status (87).

	Percent of total respondents who partly or strongly agree with each item	
	Out-of-school	In-school
1. People who accept their condition in life are happier than those who try to change theirs.	68	69
2. Good luck is more important than hard work for success.	43	45
3. Everytime I try to get ahead something or somebody stops me.	62	59
4. If a person is not successful in life, it is his own fault.	57	60
5. I would make any sacrifice to get ahead in life.	85	85
6. If I could change I would be someone different from myself.	63	64
7. People like me do not have much of a chance to be successful in life.	30	31
8. I am able to do so many things well.	87	87
Weighted sample size	(651,037)	(262,491)

Table 117. Filipino youths' sense of personal competence* expressed in scores by region, in-school and out-of school.

Levels of personal competence	I	II	III	IV	V	VI	VII	VIII	IX	X
Out-of-school youths' average scores	2.859	2.618	2.781	2.727	2.583	2.791	2.651	2.641	2.318	2.641
In-school youths' average scores	2.914	2.689	2.789	2.663	2.840	2.808	2.728	2.568	2.577	2.681

*Scores were computed on the basis of responses to items in Table 7.

Table 118. Out-of-school youths' feeling about leaving school by region (87).

	I	II	III	IV	V	VI	VII	VIII	IX	X
	- Percent -									
Very disappointed	5	4	8	11	7	5	17	5	16	25
Disappointed	74	71	65	66	72	65	46	49	55	40
Did not care	15	20	22	16	17	20	30	39	19	28
Happy	5	3	5	4	4	8	5	6	9	6
Very happy	1	2	1	3	1	1	2	1	1	1
Percent who have no intention of going back to school	38	38	42	43	49	39	34	60	56	59

Table 119. Filipino youths' average levels of personal expectations expressed in scores by region, in-school and out-of-school (87).

Out-of-school levels of expectation	Region									
	I	II	III	IV	V	VI	VII	VIII	IX	X
Past	4.014	4.090	3.736	4.007	4.055	4.369	3.736	3.248	3.399	3.323
Present (actual)	4.123	4.562	3.725	4.305	4.005	4.252	3.632	3.331	3.763	3.475
Present (ideal)	5.465	5.601	5.183	4.914	4.917	5.325	5.223	4.275	4.498	4.573
Future	6.897	5.758	7.031	6.351	6.611	6.835	6.152	5.278	5.505	5.323
In-school levels of expectation										
Past	4.266	3.903	4.031	3.909	4.275	4.117	3.942	3.986	3.825	3.735
Present (actual)	4.689	4.582	4.563	4.451	4.616	4.566	4.128	4.078	4.346	4.036
Present (ideal)	5.904	5.651	5.741	5.294	5.426	5.435	5.526	5.168	4.906	4.885
Future	7.610	7.404	7.650	6.748	6.969	7.210	6.320	5.804	5.942	5.684

Table 120. Youths' exposure to mass media (87).

Frequency of listening or reading or watching	Radio	Television	Movies (English)	Movies (Tagalog)	Newspaper	Magazine	Comics	Books
				Percent				
Out-of-school								
Never	7	52	28	14	26	23	9	32
Rarely	17	23	35	33	35	35	19	37
Occasionally	18	15	23	28	22	24	19	13
Often	32	6	10	18	12	14	30	11
Very often	26	4	4	7	5	4	23	2
Total	100	100	100	100	100	100	100	100
In-school								
Never	7	49	29	17	19	18	8	5
Rarely	17	24	33	32	32	30	19	17
Occasionally	20	13	24	29	27	28	22	23
Often	32	8	11	16	14	18	29	35
Very often	24	6	3	6	8	6	22	20
Total	100	100	100	100	100	100	100	100

Table 121. Incidence of poverty and composition of the poor by education, Philippines 1971 (318).

	Incidence of poverty	Composition of the poor
Elementary		
Grade I to III	82.73	20.19
Grade IV to V	80.32	23.82
Grade VI to VII	75.71	21.00
High school		
First year	72.31	3.18
Second year	63.57	3.85
Third vear	60.76	2.16
Fourth year	49.37	6.20
College		
First year	55.93	0.74
Second year	40.00	1.49
Third year	34.25	0.56
Fourth year	20.44	1.68
Fifth year	14.63	0.14
Sixth year or higher	16.77	0.16
No grade completed or grade not reported	85.79	14.83
Total Poor	69.92	100.00

Table 122. Percentage of literate among population 6 years old and over, by sex, age group, urban and rural, 1970 (81).

Age group	Philippines			Male-female difference	Urban	Rural	Urban-rural difference
	Both sexes	Male	Female		Both sexes	Both sexes	
6 - 9	34.6	33.3	35.9	- 2.6	43.4	31.1	12.3
10 - 14	87.3	85.7	88.9	- 3.2	93.8	84.5	9.3
15 - 19	92.7	92.3	93.2	- 0.8	96.8	90.5	6.3
20 - 24	91.5	91.7	91.4	0.3	96.9	88.5	8.4
25 - 29	88.6	89.0	88.2	0.8	95.9	84.8	11.1
30 - 34	87.5	88.5	86.5	2.0	95.4	83.3	12.1
35 - 39	82.7	84.8	80.5	4.3	93.4	77.4	16.0
40 - 44	80.0	82.5	77.7	4.8	92.1	73.9	18.2
45 - 49	74.1	77.8	70.8	7.0	89.2	67.1	22.1
50 - 54	70.2	74.6	66.4	8.2	86.7	62.7	24.0
55 - 59	67.6	71.8	63.7	8.1	84.7	59.7	25.0
60 - 64	62.3	67.9	56.9	11.0	80.9	53.9	27.0
65 - 69	58.6	65.6	52.0	13.6	77.4	49.9	27.5
70 - 74	50.8	58.6	42.6	16.0	70.8	42.4	28.4
75+	42.1	50.4	34.6	15.8	61.8	34.0	27.8
Total	76.4	76.9	75.9	1.0	86.6	71.5	15.1
Percent literate among population 10 years and over							
1960	72.0	73.6	70.6	3.0			
1970	83.4	84.6	82.2	2.4	92.8	78.7	14.1

Table 123. Population 6-14 years old by sex, school attendance, urban and rural, 1970 (81).

Age	Total No. Philippines Both Sexes	Percent of 6-14 year olds attending school				
		Philippines			Urban	Rural
		Both Sexes	Male	Female	Both Sexes	Both Sexes
6	1,218,176	2.9	2.7	3.1	4.5	2.3
7	1,230,295	34.8	33.2	36.3	42.7	31.6
8	1,183,924	73.3	71.7	75.0	84.4	69.0
9	1,023,600	83.7	82.5	85.0	91.4	80.5
10	1,160,129	83.7	82.7	84.7	91.6	80.5
11	882,644	85.9	84.9	87.2	92.1	83.3
12	1,126,493	80.3	79.2	81.6	88.5	77.1
13	915,516	75.8	75.3	80.8	84.5	71.8
14	941,094	62.3	62.4	62.1	74.4	56.8

Table 124. Percentage of population 6-14 years old who are not attending school, 1970 by region and province (81).

Region/province	All persons 6-14 yrs. old	Percent of persons 6-14 years old not attending school Both sexes
Philippines	9,681,241	37.0
Region I - Manila	292,669	25.9
Region II - Ilocos	465,781	32.3
Abra	37,619	30.6
Benguet	68,350	34.5
Ifugao	25,552	48.1
Ilocos Norte	81,145	27.5
Ilocos Sur	96,059	29.6
Kalinga-Apayao	36,450	38.9
La Union	96,476	30.5
Mt. Province	24,130	37.1
Region III - Cagayan Valley	395,079	38.9
Batanes	2,873	29.7
Cagayan	157,797	36.9
Isabela	172,941	42.1
Nueva Vizcaya	61,468	35.4
Region IV - Central Luzon	1,328,036	31.1
Bataan	58,294	35.5
Bulacan	206,075	31.3
Nueva Ecija	228,467	34.2
Pampanga	239,236	30.6
Pangasinan	360,053	29.3
Tarlac	148,880	29.9
Zambales	87,031	29.8
Region V - Southern Tagalog	1,691,643	29.0
Batangas	231,502	19.3
Cavite	130,355	26.9
Laguna	182,750	30.7
Marinduque	39,853	33.3
Occidental Mindoro	38,417	36.2
Oriental Mindoro	92,414	36.3
Palawan	61,384	41.8
Quezon	267,668	36.8
Rizal	647,300	26.2
Region VI - Bicol and Masbate	923,552	34.3
Albay	184,356	36.0
Camarines Norte	74,841	34.1
Camarines Sur	265,445	38.6
Catanduanes	130,364	11.6
Masbate	146,555	43.8
Sorsogon	121,991	35.4
Region VII - Western Visayas	1,021,005	38.4
Aklan	71,591	36.9
Antique	76,171	37.7
Capiz	110,196	40.6
Iloilo	302,822	36.7
Negros Occidental	410,900	39.6
Romblon	49,325	37.0
Region VIII - Eastern Visayas	1,454,721	42.3
Bohol	175,805	42.5
Cebu	416,031	40.7
Eastern Samar	76,047	37.8

Table 124. (Cont.)

Region/province	All persons 6-14 yrs. old	Percent of persons 6-14 years old not attending school — Both sexes
Northern Samar	86,216	43.2
Western Samar	121,896	44.9
Leyte	312,515	41.5
Negros Oriental	197,192	46.5
Southern Leyte	69,019	42.4
Region IX - North/Northeast Mindanao	834,404	42.0
Agusan del Norte	75,813	36.3
Agusan del Sur	49,523	45.1
Bukidnon	115,549	46.4
Camiguin	14,272	31.5
Lanao del Norte	95,440	42.6
Lanao del Sur	132,426	55.3
Misamis Occidental	84,647	34.7
Misamis Oriental	130,672	37.1
Surigao del Norte	66,068	35.0
Surigao del Sur	69,994	39.7
Region X - South/Southeast Mindanao	1,359,523	45.6
Cotabato	309,144	48.8
Davao del Norte	120.116	43.5
Davao del Sur	208.750	39.9
Davao Oriental	70,281	46.5
South Cotabato	127,233	40.7
Sulu	121,505	50.0
Zamboanga del Norte	113,958	46.7
Zamboanga del Sur	288,536	46.5

Table 125. Population 25 years old and over by sex, age group, highest grade completed, urban and rural, 1970 (81).

	All persons 25 years and over	Both sexes by age-group						Philippines		Male-female difference	Urban	Rural	Urban-rural difference
		25-34	35-44	45-54	55-64	65-74	75+	Male	Female		Both sexes	Both sexes	
Total	12,696,808 Philippines	4,531,752	3,383,521	2,297,792	1,421,222	680,444	352,420						
No grade completed	19.7	9.9	15.7	24.7	31.9	42.8	58.8	17.2	22.1	- 4.9	9.0	24.9	- 15.9
Elementary	56.1	57.7	57.4	58.5	54.2	47.2	36.1	55.7	56.6	- 0.9	45.4	61.3	- 15.9
1	2.9	1.6	2.6	3.7	4.4	5.5	5.7	2.8	2.9		1.7	3.5	
2	6.2	4.1	6.2	7.7	8.7	9.6	8.0	6.3	6.1		3.6	7.5	
3	7.8	6.4	8.4	8.9	9.1	8.8	6.5	7.8	7.8		4.9	9.2	
4	13.6	12.7	14.7	16.0	13.3	10.4	7.6	13.3	13.9		9.0	15.9	
5	7.6	8.9	8.2	7.1	5.9	4.0	2.5	7.5	7.7		6.1	8.3	
6	15.9	23.9	16.4	10.2	7.4	4.8	3.0	15.7	16.4		16.9	15.4	
7	2.1	0.1	0.9	4.9	5.4	4.1	2.8	2.3	1.8		3.2	1.5	
High school	14.1	18.6	16.4	9.6	8.5	5.7	2.6	16.5	11.7	+ 4.8	24.1	9.3	+ 14.8
1	2.8	3.8	3.2	1.7	1.4	1.0	0.5	2.9	2.6		3.6	2.4	
2	2.9	3.9	3.4	1.9	1.7	1.2	0.5	3.3	2.6		4.4	2.2	
3	1.9	2.6	2.2	1.2	1.1	0.7	0.3	2.3	1.5		3.0	1.4	
4	6.5	8.3	7.6	4.8	4.3	2.8	1.3	8.0	5.0		13.1	3.3	
College	9.6	13.4	10.3	6.7	5.1	3.9	1.9	10.1	8.8	+ 1.3	21.0	3.9	+ 17.1
1	0.8	1.2	0.9	0.5	0.3	0.2	0.1	0.9	0.6		1.6	0.4	
2	1.8	2.3	2.1	1.4	1.1	0.8	0.4	2.1	1.6		3.8	0.8	
3	0.9	1.6	0.9	0.5	0.3	0.2	0.1	1.2	0.6		2.0	0.4	
4	4.9	6.9	5.2	3.3	2.5	1.9	0.9	4.4	5.2		10.8	2.0	
5	0.5	0.7	0.4	0.3	0.2	0.2	0.1	0.6	0.4		1.1	0.1	
6 or more	0.7	0.7	0.8	0.7	0.7	0.6	0.3	0.9	0.4		1.7	0.2	
Not stated	0.5	0.4	0.2	0.5	0.3	0.4	0.6	0.5	0.8	- 0.3	0.5	0.6	- 0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0	

Table 126. Population 25 years old and over by age group, highest grade completed, urban and rural, 1970 (81).

	25-34 years		Urban-rural difference	35-44		Urban-rural difference	45-54		Urban-rural difference	55-64		Urban-rural difference	65-74		Urban-rural difference	75 and over		Urban-rural difference
	Urban	Rural		Urban	Rural		Urban	Rural		Urban	Rural		Urban	Rural		Urban	Rural	
No grade	3.7	13.1	(- 9.4)	6.3	20.3	(-13.9)	10.7	31.1	(-20.4)	15.7	39.5	(-23.8)	25.0	50.8	(-25.8)	42.2	66.1	(-23.9)
Elementary	39.5	67.3	(-27.8)	44.0	63.7	(-19.7)	53.5	60.9	(- 7.4)	53.7	54.4	(- 0.7)	52.5	44.8	(- 7.7)	46.4	31.7	(14.7)
1	0.7	2.0		1.3	3.3		2.2	4.4		2.9	5.1		4.2	6.0		5.4	5.9	
2	1.8	5.3		3.2	7.6		4.6	9.1		6.0	10.1		7.9	10.4		8.2	8.0	
3	3.1	8.1		4.9	10.1		6.1	10.3		7.1	9.9		8.3	9.1		7.2	6.2	
4	6.4	16.0		9.1	17.3		11.9	17.9		11.6	14.1		11.5	10.0		10.3	6.4	
5	5.8	10.6		6.4	9.0		7.1	7.1		6.5	5.6		5.2	3.4		3.8	1.9	
5	21.5	25.2		17.7	15.7		14.1	8.4		11.2	5.6		8.2	3.3		5.8	1.8	
7	0.2	0.1		1.4	0.7		7.5	3.7		8.4	4.0		7.2	2.6		5.7	1.5	
High school	29.2	13.2	(16.0)	27.0	11.4	(15.6)	19.4	5.1	(14.3)	17.5	4.2	(13.3)	12.2	2.8	(9.4)	5.9	1.1	(4.8)
1	4.5	3.5		4.1	2.8		2.8	1.3		2.4	0.9		1.8	0.7		1.0	0.3	
2	5.4	3.2		4.9	2.7		3.4	1.2		3.1	1.0		2.4	0.7		1.1	0.3	
3	3.9	1.9		3.3	1.7		2.1	0.7		2.1	0.7		1.4	0.4		0.5	0.1	
4	15.4	4.6		14.7	4.2		11.1	1.9		9.9	1.6		6.6	1.0		3.3	0.4	
College	27.2	6.0	(21.2)	22.2	4.4	(17.9)	16.0	2.5	(15.4)	12.9	1.6	(11.3)	9.9	1.2	(8.7)	4.9	0.4	(4.5)
1	2.2	0.7		1.7	0.5		1.1	0.2		0.7	0.1		0.4	0.1		0.2	0.0	
2	4.7	1.0		4.3	1.1		3.1	0.6		2.5	0.5		1.9	0.3		0.9	0.1	
3	3.2	0.7		1.9	0.4		1.1	0.2		0.8	0.1		0.5	0.1		0.3	0.0	
4	14.2	3.1		11.5	2.1		8.1	1.1		6.4	0.7		5.1	0.5		2.4	0.2	
5	1.6	0.3		1.0	0.1		0.7	0.1		0.6	0.1		0.4	0.1		0.2	0.1	
6 or more	1.3	0.2		1.9	0.2		1.9	0.3		1.9	0.1		1.6	0.1		0.9	0.0	
Not stated	0.4	0.4		0.4	0.3		0.4	0.4		0.2	0.3		0.4	0.4		0.6	0.7	

Table 127. Percentage distribution of educational aspirations of 1973 male and female NCEE examinees (146).

Educational aspirations	Males	Females	Total
No schooling	0.1	0.1	0.1
Elementary	0.6	0.3	0.4
High school	2.0	1.2	1.5
Vocational/special training	9.4	3.6	6.2
Some college	5.8	4.0	4.8
College degree	63.6	71.9	68.2
Master's or graduate studies	13.4	12.6	13.0
Doctoral degree	4.5	5.7	5.2
No response	0.6	0.6	0.6
Total	100.0	100.0	100.0

Table 128. Percentage of 1973 NCEE examinees' reported importance of college by qualifed/not qualified for college admission (149).

Importance of college	Qualified	Not qualified	Total
Total N	225,134	71,689	296,823
Very important	92.8	86.7	91.3
Somewhat important	6.1	10.0	7.1
Not at all important	1.0	3.1	1.5
No response	0.1	0.2	0.1
Total	100.0	100.0	100.0
Very important	77.1	22.9	100.0
Somewhat important	66.0	34.0	100.0
Not at all important	48.7	51.3	100.0
No response	59.9	40.1	100.0
Total	75.9	24.1	100.0

Percentage of male and female examinees per reported importance of college

Importance of college	Male	Female	Total
Very important	43.7	56.3	100.0
Somewhat important	55.0	45.0	100.0
Not at all important	60.8	39.2	100.0
No response	58.2	41.8	100.0

Table 129. Reasons given by 1973 NCEE examinees for going to college by sex (148).

Reasons	Male	Female	Total
	Percent giving each reason		
1. My parents want me to go to college.	88.3	89.4	88.9
2. I want to live away from home.	20.0	14.5	16.9
3. Having a college degree will increase my chances for getting a good job.	93.8	95.0	94.5
4. I was offered financial assistance.	25.3	24.1	24.6
5. Most of my friends and relatives are going to college.	44.5	43.1	43.7
6. I have nothing else to do.	21.5	19.9	20.6
7. College will help me develop a meaningful philosophy of life.	91.5	93.2	92.4

Table 130. Percentage of 1973 NCEE examinees reporting financial sources for college education by sex (145).

Sources	Male	Female	Total
Parents	88.4	89.5	89.0
Military benefits	15.1	13.8	14.4
Scholarship/grants	14.1	12.5	13.2
Loans	16.3	14.6	15.4
Part time work	42.3	33.4	37.4
Relatives' aid	39.2	39.9	39.6
Others	35.4	33.0	34.1
Total N	132,741	164,082	296,823

Table 131. Percentage distribution of 1973 NCEE examinees' career choices and their parents' occupation by field of endeavor (143).

Field of endeavor	Parents' occupation	Examinees' most probable occupation	Examinees' most desired occupation
		Percent	
Health	2.3	33.5	36.4
Public service*	23.8	21.5	20.8
Technical and engineering	11.3	21.3	20.6
Business and clerical	22.9	13.7	13.2
Agriculture and fishing	32.6	3.4	2.2
Arts and culture	0.8	3.3	3.8
Personal services	5.8	1.3	0.8
Religious	0.2	0.9	0.9
Natural and physical sciences	0.1	0.7	1.0
Social sciences	0.2	0.4	0.5
Total	100.0	100.0	100.0

*This category includes lawyer, judge, diplomat, foreign service, educator, librarian, policeman, fireman, soldier, navy, AFP, detective, security guard, laborer, transportation worker, government official.

Table 132. Percentage distribution of 1973 NCEE examinees by occupational fields chosen and by region (143).

Region	Arts and culture	Agric. and fishing	Health	Business and clerical	Public service	Eng'g. & technical	Personal services	Natural and physical sciences	Social sciences	Religious	Percent	Total N
Greater Manila area	4.9	1.1	31.5	19.9	14.5	24.7	0.8	1.2	1.0	0.4	100.0	44,790
Ilocos region	2.6	5.3	34.6	10.2	25.5	18.2	1.9	0.4	0.4	0.9	100.0	12,900
Cagayan valley	2.3	5.6	32.5	8.8	29.1	19.2	1.4	0.2	0.2	0.7	100.0	8,892
Central Luzon	2.9	3.5	35.9	11.6	20.8	22.6	1.3	0.5	0.3	0.6	100.0	36,980
Southern Luzon	3.3	3.2	33.3	12.8	22.6	21.8	1.3	0.8	0.3	0.6	100.0	29,701
Bicol region	2.8	4.4	35.0	11.8	22.3	20.6	1.3	0.5	0.4	0.9	100.0	11,421
Western Visayas	2.6	3.3	34.6	12.0	24.3	19.6	1.2	1.0	0.3	1.1	100.0	23,008
Central Visayas	3.1	3.1	33.8	15.8	19.8	21.5	1.0	0.6	0.3	1.0	100.0	14,210
Eastern Visayas	3.1	5.0	28.6	12.3	28.6	18.2	2.3	0.4	0.1	1.4	100.0	8,672
Northern Mindanao	3.0	4.3	32.0	12.5	25.2	19.7	1.4	0.4	0.2	1.3	100.0	14,867
Southern Mindanao	3.4	4.6	24.2	13.1	22.8	18.2	1.4	0.4	0.3	1.6	100.0	21,934
Total (Philippines)	3.3	3.4	33.5	13.7	21.5	21.3	1.3	0.7	0.4	0.9	100.0	227,375

Table 133. A comparison of five different populations with respect to annual family income (in percent) (283).

Annual family income (thousands pesos)	1971 Philippine population	1974 NCEE applicants	1974 NCEE qualified	1976 UPCAT (College admission test) applicants	1976 UPCAT qualified
0.0 - 0.5	5.2	4.31	3.69	2.16	0.53
0.5 - 1.0	12.1	4.31	3.69	2.40	0.58
1.0 - 1.5	12.2	4.31	3.69	2.73	0.95
1.5 - 2.0	11.8	4.31	3.69	2.85	1.13
2.0 - 2.5	9.6	4.31	3.69	2.46	0.99
2.5 - 3.0	8.1	4.31	3.69	2.40	0.91
3.0 - 4.0	12.5	9.61	9.59	5.14	2.77
4.0 - 5.0	7.5	9.61	9.59	4.99	2.79
5.0 - 6.0	5.0	9.61	9.59	4.55	2.55
6.0 - 8.0	6.4	11.95	12.43	9.53	7.40
8.0 - 10.0	3.6	8.97	9.47	9.68	7.92
10.0 - 15.0	3.7	14.40	15.50	15.79	16.33
15.0 - 20.0	1.1	3.34	3.83	9.81	13.12
20.0 plus	1.3	6.68	7.86	25.50	42.06

Table 134. Population with college degrees by sex, urban-rural, and field of study, 1970 (81).

Field of study		Philippines				Urban			Rural		
		Both sexes	Male	Female		Both sexes	Male	Female	Both sexes	Male	Female
	Total N	1,083,760	480,615	603,145		779,880	356,384	423,496	303,880	124,213	179,649
	Percent	100.0	44.3	55.7	100.0	72.0			28.0		
						100.0	45.7	54.3	100.0	40.9	59.1
		100.0		% female in each field	% urban in each field	100.0		% female in each field	100.0		% female in each field
Humanities	39,826	3.8		38.1	77.9	4.0		39.9	2.9		31.2
Education	478,232	44.1		76.3	59.4	36.4		81.4	60.6		72.7
Fine Arts	12,240	1.1		29.5	89.5	1.4		30.3	0.4		21.9
Law	43,795	4.0		9.6	84.6	4.8		9.5	2.2		8.8
Social science	260,957	24.1		44.5	84.4	28.2		45.0	13.4		41.8
Natural science	6,672	0.6		59.6	85.2	0.7		60.6	0.3		54.0
Engineering	86,260	8.0		5.7	79.2	8.8		5.6	5.9		5.8
Medical science	88,240	8.1		71.5	82.4	9.3		70.9	5.1		74.5
Agriculture	17,363	1.6		10.6	60.2	1.3		10.2	2.3		11.2
Course not stated	50,175	4.6				5.1			6.9		

Table 135. Unemployment rates by years of schooling completed 1961, 1965, 1968 among the active population 10-65 years (184, p. 309; 49).

Level of schooling	May 1961	October 1965	May 1968
None	4.0	2.7	4.4
Grades 1-4	5.6	3.8	4.5
Grades V-VI	9.4	7.1	6.8
High school 1-3 years	12.6	9.4	13.7
High school graduate	18.1	11.3	15.3
College 1-3 years	18.7	15.3	17.4
College 4 or more years	7.9	5.8	7.2
Total	8.5	6.1	7.8

Table 136. Total rice production (rough rice) for crop years 1948-49 to 1974-75 and the population figures as of July 1 of the corresponding years (13).

Year	Rice production in cavans of 44 kg	Population figures	Per capita rough rice available in cavans
1948-49	56,620,000	19,674,000	2.88
1949-50	59,229,000	20,275,000	2.92
1950-51	59,463,000	20,894,000	2.85
1951-52	64,335,000	21,533,000	2.99
1952-53	71,458,000	22,191,000	3.22
1953-54	72,328,000	22,868,000	3.16
1954-55	72,793,000	23,568,000	3.09
1955-56	74,394,000	24,288,000	3.06
1956-57	76,044,000	25,030,000	3.04
1957-58	72,806,000*	25,795,000	2.82
1958-59	83,739,000	26,584,000	3.15
1959-60	84,989,000*	27,387,000	3.10
1960-61	84,199,000	28,232,000	2.98
1961-62	88,865,000	29,062,000	3.06
1962-63	90,159,000	29,937,000	3.01
1963-64	87,338,000*	30,839,000	2.83
1964-65	90,738,000	31,768,000	2.86
1965-66	92,560,000	32,725,000	2.83
1966-67	93,046,000	33,711,000	2.76
1967-68	103,652,000	34,726,000	2.98
1968-69	101,015,000*	35,772,000	2.82
1969-70	118,941,000	36,849,000	3.23
1970-71	121,430,000	37,959,000	3.20
1971-72	115,911,000*	39,102,000	2.96
1972-73	100,332,000*	40,280,000	2.49
1973-74	127,139,000	41,493,000	3.06
1974-75	128,637,000	42,743,000	3.01

*Drop in production from previous year.

Table 137. Percentage of rice area harvested by irrigated and rain-fed crops and by variety group, Philippines 1968-1975 (13).

	Irrigated				Rainfed							
Crop year	% of irrigated area planted to new varieties*	% planted to other varieties**	Total rice area irrigated (000 ha)	% of total rice area which is irrigated	% of rainfed area planted to new varieties	% of rainfed area planted to other varieties	% of rainfed area planted to upland varieties	Total rice area rainfed (000 ha)	% of total rice area rainfed	Total rice area (000 ha)	% of total rice area which is upland	% of total rice area planted to new varieties
1967/68	34.1	65.9	1309.0	39.6	12.8	63.1	24.1	1994.6	60.4	3303.7	14.5	21.2
1968/69	61.6	38.4	1482.8	44.5	23.8	52.3	23.9	1849.3	55.5	3332.1	13.2	40.6
1969/70	61.4	38.6	1345.7	43.2	29.8	46.9	23.3	1767.7	56.8	3113.4	13.2	43.5
1970/71	67.0	33.0	1470.5	47.2	35.4	42.4	22.2	1642.1	52.8	3112.6	11.7	50.3
1971/72	73.3	26.7	1332.0	41.0	44.4	36.5	19.1	1914.4	59.0	3246.4	11.3	56.3
1972/73	70.3	29.7	1240.0	39.9	43.2	33.6	23.2	1870.8	60.1	3111.8	14.0	53.9
1973/74	79.9	21.1	1493.7	43.5	50.5	28.4	21.1	1943.1	56.5	3436.8	11.9	63.3
1974/75	78.6	21.4	1411.7	39.9	50.2	28.6	21.2	2127.1	60.1	3538.8	12.8	61.5

*Includes IR, BPI and C-series. **Formerly classified as traditional varieties.

Table 138. Percentage of total rice production by irrigated and rain-fed crops and by variety group, Philippines 1968-1975 (13).

	Irrigated				Rainfed							
Crop year	% of irrigated rice prod'n. coming from new varieties	% coming from other varieties	Total rice prod'n. from irrigated area (000 MT)	% of total rice prod'n. coming from irrigated area	% of rainfed rice prod'n. coming from new varieties	% coming from other varieties	% coming from upland rice	Total rice prod'n. coming from rainfed areas (000 MT)	% of total rice prod'n. coming from rainfed areas	Total rice prod'n. (000 MT)	% of total rice prod'n. from upland	% of total rice prod'n. from new varieties
1967/68	38.7	61.3	2270.5	49.8	14.5	68.2	17.3	2290.2	50.2	4560.7	8.7	26.6
1968/69	63.8	36.2	2545.4	57.3	26.0	55.5	18.5	1899.3	42.7	4444.7	7.9	47.6
1969/70	64.5	35.5	2761.0	52.8	31.7	51.2	17.1	2472.4	47.2	5233.4	8.1	49.0
1970/71	68.0	32.0	2930.8	54.9	38.8	45.6	15.5	2412.1	45.1	5342.9	7.0	54.8
1971/72	76.6	23.4	2617.3	51.3	49.4	38.0	12.6	2482.8	48.7	5100.1	6.1	63.4
1972/73	72.6	27.4	2343.6	53.1	49.8	33.7	16.5	2071.0	46.9	4414.6	7.7	61.9
1973/74	81.3	17.7	3015.0	53.9	58.3	26.8	14.9	2579.0	46.1	5594.1	6.9	70.7
1974/75	81.3	17.7	3033.9	53.6	58.0	27.3	14.7	2626.1	46.4	5660.0	6.8	70.5

Table 139. Rough rice yield per hectare of irrigated and rain-fed crops, by variety group, Philippines 1968-1975 (13).

Crop year	Irrigated			Rainfed								
	New varieties	Other varieties	All irrigated	Lowland		Upland	All rainfed	Total				
				New varieties	Other varieties				Col. 1 Col. 2[a]	Col. 4 Col. 5[b]	Col. 1 Col. 4[c]	Col. 2 Col. 5[d]
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)				
	(Kilograms/hectare)											
1967/68	1967.9	1613.5	1734.5	1307.2	1239.3	825.1	1148.2	1380.5	1.22	1.05	1.51	1.30
1968/69	1778.5	1617.5	1716.6	1125.7	1089.4	792.1	1027.0	1333.9	1.09	1.03	1.58	1.48
1969/70	2155.8	1886.0	2051.7	1487.5	1527.3	1026.4	1398.7	1680.9	1.14	0.97	1.45	1.23
1970/71	2023.7	1930.9	1993.1	1614.4	1580.0	1025.0	1468.9	1716.5	1.05	1.02	1.25	1.22
1971/72	2053.0	1723.0	1965.0	1443.2	1350.4	855.4	1297.1	1571.0	1.19	1.07	1.42	1.28
1972/73	1950.4	1741.7	1888.5	1276.8	1110.6	786.4	1107.0	1418.7	1.12	1.15	1.53	1.57
1973/74	2051.2	1887.9	2018.5	1531.0	1252.1	939.9	1327.3	1627.7	1.09	1.22	1.34	1.51
1974/75	2222.0	1878.8	2147.2	1430.0	1179.2	853.6	1236.4	1601.6	1.18	1.21	1.55	1.59

[a]Average yield of new varieties compared to average yield of other varieties in irrigated areas.

[b]Average yield of new varieties compared to average yield of other varieties in reinfed areas.

[c]Average yield of new varieties in irrigated area compared to average yield of new varieties in rainfed area.

[d]Average yield of other varieties in irrigated area compared to average yield of other varieties in rainfed area.

Table 140. Percentage of total farms using different kinds of farm equipment by type of ownership, July 1970-June 1971 (48).

Kind of farm equipment	Total no. of farms 2,354,469	Total no. of farms using each kind of equipment	% of farms using each kind of farm equipment		Type of ownership of farm equipment used			
					Owned solely by farm operator	Owned jointly with others	Provided by landlord	Rented from others
Plows		1,493,133	63.4	100.0	91.2	0.2	2.6	6.0
Harrows		1,124,823	47.8	100.0	91.5	0.1	1.8	6.6
Tractors		89,128	3.8	100.0	12.9	0.03	4.6	82.5
Stripping machines, crushers, shellers, shredders		102,597	4.4	100.0	17.6	0.01	0.5	81.9
Sprayers		150,436	6.4	100.0	59.3	0.09	6.0	34.7
Harvesting machines & threshing equipment		147,510	6.3	100.0	10.7	0.02	1.6	87.7
Power-producing machine		9,323	0.4	100.0	63.3	0.02	9.2	27.5
Carts and wheelbarrows		352,076	14.9	100.0	86.7	0.2	1.7	11.4
Motor vehicles		84,430	3.6	100.0	18.0	0.1	5.1	76.7
Other farm equipment		1,680,033	71.4	100.0	91.9	0.1	1.3	6.7

Table 141. Expectation of life at birth, 1902-2000 (44).

Year	Expectation of life at birth (years)	
	Males	Females
1902	11.54	13.92
1918	25.17	26.07
1938	44.80	47.72
1948	48.81	53.36
1960	51.17	55.00
1965-1970	52.18	55.35
1970-1975	56.65	60.35
1975-1980	58.95	62.85
1980-1985	61.59	65.35
1985-1990	62.79	66.60
1990-1995	63.99	67.85
1995-2000	64.65	68.53

Table 142. Exposure to family planning clinics, communication with and awareness of friends' family planning behaviour among married women under age 45 by urban-rural and Philippines (240).

	Philippines	Urban	Rural
Total estimated number of married eligible women under age 45	4,559,372	1,369,540	3,189,832
Percent of total women who:			
1. Know of any clinic where information or supplies for family planning can be obtained	57.9	71.8	52.0
2. Were visited by a social worker or field worker who encouraged attendance at a family planning clinic	24.8	26.9	24.0
3. Have ever visited a family planning clinic	23.9	33.6	19.7
4. Have actually used a method learned from the clinic	16.6	24.2	13.4
5. Are still using a method obtained from a clinic	10.5	15.9	8.1
6. Will visit clinic again	7.0	9.1	6.1
7. Have not visited clinic but would like to visit one now	43.5	34.0	48.3
8. Do not want to learn more about any method of family planning	57.0	60.1	55.7
9. Have never talked with friends, relatives or neighbors about ways of delaying or preventing pregnancy	36.0	29.3	38.9
10. Know of nobody or do not know if any friends or relatives use any method to delay or prevent pregnancy	42.9	32.3	47.5

Table 143. Percentage of wives* who named or recognized family planning methods, know how to use and have actually used them by, Philippines, Metropolitan Manila, urban and rural, 1973 (240).

Family planning methods	Not recognized	Named or recognized	Know how to use	Has used	No information
Pills					
Philippines	16.9	43.8	24.2	14.0	1.0
Metro Manila	8.1	36.7	30.8	23.0	1.4
Urban	8.3	38.8	30.2	21.3	1.3
Rural	20.7	45.8	21.7	10.9	0.9
IUD					
Philippines	31.9	42.6	20.2	4.3	1.0
Metro Manila	16.7	42.6	26.9	12.5	1.3
Urban	19.0	45.4	25.5	8.8	1.2
Rural	37.4	41.4	17.9	2.3	0.9
Rhythm					
Philippines	47.6	29.2	14.7	7.4	1.1
Metro Manila	35.7	30.6	18.4	13.7	1.6
Urban	34.7	32.5	19.7	11.6	1.4
Rural	53.2	27.7	12.5	5.6	0.9
Withdrawal					
Philippines	54.9	22.1	15.1	6.9	1.0
Metro Manila	41.0	29.5	18.0	10.1	1.5
Urban	39.9	27.0	21.4	10.4	1.3
Rural	61.5	19.9	12.3	5.4	0.8
Condom					
Philippines	56.0	25.4	15.2	2.4	1.0
Metro Manila	49.9	29.3	15.0	4.2	1.5
Urban	43.9	29.4	21.3	4.1	1.3
Rural	61.1	23.7	12.6	1.7	0.9
Foam					
Philippines	84.8	9.6	4.3	0.2	1.1
Metro Manila	77.0	13.5	6.8	1.2	1.5
Urban	76.8	13.8	7.5	0.5	1.4
Rural	88.3	7.8	2.9	0.1	0.9
Foam tablets					
Philippines	85.2	9.5	4.0	0.2	1.1
Metro Manila	78.4	13.1	6.2	0.8	1.5
Urban	77.9	13.2	6.8	0.6	1.4
Rural	88.3	7.9	2.8	0.1	0.9
Female sterilization (litigation)					
Philippines	76.3	15.9	5.9	0.9	1.0
Metro Manila	70.2	19.6	6.7	2.0	1.5
Urban	67.5	20.2	8.5	2.4	1.4
Rural	80.1	14.0	4.7	0.3	0.9
Male sterilization (vasectomy)					
Philippines	83.5	11.5	4.0	0.0	1.0
Metro Manila	77.2	15.0	6.2	0.0	1.5
Urban	76.9	15.5	6.1	0.0	1.5
Rural	86.3	9.7	3.1	0.0	0.9
Other methods					
Philippines	95.9	1.2	1.2	0.6	1.1
Metro Manila	96.6	1.3	0.3	0.2	1.6
Urban	95.5	1.4	1.1	0.5	1.5
Rural	96.1	1.2	1.1	0.6	1.0

*This refers to wives under age 45.

Table 144. Source of information for currently married women under age 45 who have heard of at least one family planning method (1973) (240).

	Phil.	Urban	Rural	Metro Manila
Percent who have heard of at least one method	53.3	55.4	52.3	57.8
Source of information	100.0	100.0	100.0	100.0
Radio, TV, movie	6.8	3.8	8.3	2.2
Printed matter	4.8	7.7	3.3	7.1
Lecture, meeting	7.2	5.1	8.2	3.0
Learned during visit to doctor, clinic, hospital, rural health unit, etc.	22.8	33.0	17.8	33.7
Told during home visit by nurse, midwife or other field worker	13.1	9.5	14.8	4.9
Heard from friends, relatives and acquaintances	39.9	33.7	42.9	36.7
Other	0.5	0.5	0.5	1.2
No information	4.9	6.7	4.2	11.2

Table 145. Philippine government views on family planning as perceived by married women under age 45 by urban, rural, and Metro Manila (240).

Women's perception of Philippine government views	Phil.	Urban	Rural	Metro Manila
			Percent	
1. It has an official program to promote family planning	17.5	19.2	16.8	19.6
2. It favors family planning	43.4	53.7	37.6	60.1
3. It is neutral	4.2	4.2	4.1	3.9
4. It opposes family planning	1.0	0.2	1.3	0.0
5. It has declared family planning illegal	1.0	0.7	1.1	2.4
6. Respondent does not know	32.5	20.3	37.7	11.7
7. No information	1.4	1.6	1.4	2.3
	100.0	100.0	100.0	100.0

Table 146. Attitudes of married women under 45 toward family planning and perceptions of their community's approval of it (240).

	Phil.	Urban	Rural	Region I	II	III	IV	V	VI	VII	VIII	IX	X
								- Percent -					
Attitude toward family planning													
a) Approve	61.9	74.8	56.3	79.5	64.5	50.3	70.9	66.8	53.4	60.4	66.6	57.9	43.7
b) Disapprove	14.0	9.4	16.0	4.5	16.5	30.8	10.7	13.0	16.1	15.9	13.2	21.0	12.1
c) Depends	10.2	7.1	11.6	6.3	9.1	10.7	9.6	5.8	9.9	12.8	8.5	12.7	16.4
d) No opinion	12.8	7.3	15.2	7.8	8.9	7.8	7.6	12.9	20.4	10.3	11.2	7.2	26.4
e) No information	1.1	1.4	0.9	1.9	1.0	0.4	1.2	1.5	0.2	0.6	0.5	1.2	1.4
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Perception of barrio's approval of family planning													
a) Approve	42.7	53.9	37.8	61.9	37.8	39.9	49.6	45.4	27.3	42.2	42.8	43.0	32.0
b) Disapprove	6.4	4.6	7.2	1.1	6.3	17.2	3.1	5.3	7.2	9.7	10.4	5.1	4.6
c) Depends	6.2	4.9	6.7	3.6	7.4	19.4	3.4	6.1	4.7	7.8	6.1	7.2	4.9
d) Do not know	35.3	25.8	39.4	20.1	40.9	18.6	33.3	37.0	49.5	27.2	33.0	35.0	49.1
e) May be approve	8.2	9.1	7.8	11.1	6.6	4.6	8.9	4.7	11.1	12.3	7.2	8.4	8.1
f) No information	1.2	1.7	1.0	2.1	1.0	0.3	1.7	1.5	0.2	0.8	0.5	1.2	1.3
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 147. Awareness of other women who have tried to stop pregnancy (as seen by married women under age 45) (249).

	Phil.	Urban	Rural	Metro Manila
			Percent	
1. Awareness of any woman who had done something to end pregnancy early to avoid giving birth.				
a) Aware	19.5	22.2	18.3	23.3
b) Not aware	79.0	76.0	80.4	74.0
c) No information	1.5	1.8	1.3	2.7
Total	100.0	100.0	100.0	100.0
2. Approval of such a practice				
a) Approve unconditionally	15.9	17.1	15.4	19.5
b) Approve if mother's health is in danger	14.1	16.5	13.1	14.5
c) Approve if live birth is impossible	3.8	6.6	2.6	8.3
d) Approve only under other circumstances	3.6	3.1	3.8	3.4
e) Disapprove	32.9	33.2	32.7	31.1
f) Do not know	28.2	21.6	31.0	20.3
g) No information	1.5	1.9	1.4	2.9
Total	100.0	100.0	100.0	100.0

Table 148. Percentage of acceptors who terminated their first method within first two years after acceptance by reason for each method (196).

	First method			
Reasons for termination	Pills	IUD	Rhythm	Condoms
All reasons	64.7	43.0	59.7	85.2
Side effects	38.2	20.2	3.7	15.7
Pregnancy	6.8	4.1	30.3	15.1
Fear of complication	5.6	1.6	0.7	1.2
IUD expulsion	-	12.8	-	-
Want another child	4.9	2.3	4.1	8.8
No need	2.9	0.6	1.5	2.8
Others (inconvenience and difficulty of obtaining supplies)	6.2	1.3	19.4	41.8

Table 149. Percentage distribution of acceptors by source of information about the clinic; type of clinic staff first describing services, and type of staff prescribing, controlling for first method (196).

	Method first accepted				
	Pills	IUD	Condom	Rhythm	Total
A. Source of information					
Home visit by family planning worker	38.3	27.2	55.7	68.0	40.2
Clinic staff in clinic	31.9	43.8	27.9	22.9	33.0
Friends and relatives	25.3	24.3	10.8	6.0	22.4
Mass media	1.6	1.2	1.0	0.0	1.3
Others	2.9	3.0	4.6	3.1	3.1
Total	100.0	100.0	100.0	100.0	100.0
(N)	(962)	(264)	(102)	(130)	(1,459)
B. Type of clinic staff first describing services					
Lay motivator	26.1	15.8	45.4	34.9	27.2
Midwife	34.6	23.4	18.1	34.6	30.8
Nurse	18.4	18.1	13.3	9.8	17.0
Doctor	18.4	38.8	19.0	15.2	21.8
Others	2.5	3.9	4.2	5.5	3.2
Total	100.0	100.0	100.0	100.0	100.0
(N)	(664)	(181)	(118)	(85)	(1,048)
C. Type of staff prescribing first method					
Nurse	15.1	5.3	11.3	17.6	13.3
Midwife	24.8	4.7	31.3	21.4	21.3
Motivator	8.0	0.4	32.4	31.0	10.4
Doctor	51.7	89.6	21.3	28.5	54.3
Others	0.4	0.0	3.7	1.5	0.7
Total	100.0	100.0	100.0	100.0	100.0
(N)	(959)	(262)	(102)	(130)	(1,454)

Table 150. Percentage of acceptors indicating specified beliefs about each of the four methods, controlling for prior use of the method (196).

Respondents who believe the method to be	Women who have ever used				Women who have never used but know about			
	Pill	IUD	Condom	Rhythm	Pill	IUD	Condom	Rhythm
Highly effective	98	86	81	70	90	76	73	65
Not bad for health	65	67	86	94	37	40	75	94
Not sinful	90	93	94	98	81	89	91	97
Not painful	62	63	85	96	44	51	80	94
Not difficult to use	91	83	71	79	76	46	62	65
Not unpleasant	97	91	67	98	90	62	58	96
Contentment	89	84	58	78	83	74	58	74

Table 151. Patterns of internal migration (1948-60) to 1970 (193, 235, 257).

Province	Differential ave. % increase in population & % provincial increase (1948-1960)	Density 1960	Density 1970	Net inter-provincial migration (+gain or -loss) (1970
20 points or more above average				
PHILIPPINES	(40.8)	90.3	122.3	
Bukidnon	65.4	23.4	50.0	+106,100
Davao	104.0			+191,088
Del Norte		32.3	54.4)	
Del Sur		78.0	123.1)	
Oriental		25.7	48.0)	
Cotabato	83.3	45.0	69.6	+127,533
Rizal	75.6	783.2	1,529.7	+784,662
Agusan	73.5			+ 60,291
Del Norte		68.5	107.3)	
Del Sur		10.4	19.5)	
Zamboanga del Sur	68.8	47.8	104.2	+ 2,009
Lanao del Norte	64.8	87.5	113.2	- 21,899
Occidental Mindoro	54.6	128.0	164.9	+ 20,615
Oriental Mindoro	43.1	96.3	132.4	+ 8,938
Camarines Norte	40.6	89.0	124.1	- 4,392
Lanao del Sur	37.4	97.7	117.6	- 80,128
Zamboanga del Norte	27.0	46.3	67.4	+ 9,739
Isabela	26.3	41.5	60.8	+ 7,922
Nueva Vizcaya	26.1	19.8	31.9	+ 28,619
Less than 20 points above average				
Masbate	18.3	83.0	121.8	+ 7,740
Quezon	16.0	54.7	82.3	+ 77,412
Mt. Province	15.9	40.9	44.4	+ 11,100
Bataan	15.6	106.9	157.5	+ 14,693
Zambales	13.3	57.5	92.4	+ 49,980
Palawan	12.3	10.9	15.9	+ 7,179
Pampanga	7.4	283.1	416.1	+ 38,097
Camarines Sur	7.2	155.6	180.1	-164,363
Laguna	6.1	268.3	397.6	+ 60,355
Cavite	3.2	293.7	404.0	+ 23,045
Less than 20 points below average				
Catanduanes	- 1.4	103.4	107.4	- 45,162
Cagayan	- 2.3	49.5	64.6	- 19,025
Surigao	- 4.8			- 188
Del Norte		71.2	87.2	
Del Sur		36.2	56.8	

Table 151. (Cont.)

Province	Differential ave. % increase in population & % provincial increase (1948-1960)	Density 1960	Density 1970	Net inter-provincial migration (+gain or -loss) (1970)
Less than 20 points below average				
Sulu	- 5.1	121.6	158.4	- 16,098
Bulacan	- 5.7	208.0	313.0	+ 88,787
Negros Oriental	- 6.0	104.0	124.5	- 72,609
Batangas	- 7.2	215.2	292.6	+ 31,740
Marinduque	- 7.3	119.5	150.2	- 11,262
Albay	-10.3	201.7	264.0	- 37,035
Tarlac	-10.3	139.7	183.3	- 3,828
Nueva Ecija	-10.7	115.1	161.1	+ 13,261
Capiz	-11.9	119.7	149.6	- 25,817
Negros Occidental	-12.5	168.1	189.7	-258,396
La Union	-17.2	196.5	250.3	- 7,527
Ilocos Sur	-18.4	131.1	149.3	- 34,453
Pangasinan	-18.7	209.4	258.2	- 92 787
Romblon	-19.8	97.1	123.2	- 12,738
20 points or more below average				
Misamis Occidental	-21.1	128.0	164.9	- 13,178
Sorsogon	-21.3	162.4	199.4	- 57,556
Manila	-25.1	29,744.3	34,764.6	- 85,708
Aklan	-26.0	124.4	144.9	- 30,351
Samar	-26.2			-157,545
Eastern		54.8	62.4	
Northern		74.7	87.5	
Ilocos Norte	-26.5	84.5	101.0	- 14,028
Cebu	-32.1	261.9	321.2	- 97,243
Iloilo	-32.4	181.5	219.4	- 89.249
Bohol	-33.8	143.8	166.0	- 69,965
Leyte	-34.3	153.7	177.2	-200,428
Misamis Oriental	-35.7	96.3	132.4	- 6,814
Antique	-38.7	94.5	114.7	- 21,833
Batanes	-44.5	49.3	54.5	- 1,849

Table 152. Provinces by density (1970) (235), net interprovincial migration (1960-1970) (193), percent change in number of farms and farm size (1960-1971) (48), and index of total development (114).

Province	Density 1970	Net inter-provincial migration, 1960-1970 (+ Gain; - Loss)	Percent change in No. of farms	Less than 5 ha.	5 ha. or more	Index of total development	Percent urban
Philippines	122.3		9	3	-11		
A. Low density provinces which registered net in-migration							
Palawan	15.9	+ 7,179	27	26	29	15	19.7
Nueva Vizcaya	31.9	+ 28,619	25	25	25	16	23.0
Agusan (Ave.)	39.0	+ 60,291				17	
del Norte	(107.3)		21	32	-14		36.4
del Sur	(19.5)		90	185	25		18.9
Bukidnon	50.0	+106,100	111	209	19	12	13.2
Isabela	60.8	+ 7,922	23	33	-17	13	13.3
Zamboanga del Norte	67.4	+ 9,739	45	60	10	15	14.5
Cotabato	69.6	+127,533	31	89	-35	23	14.6
Davao (Ave.)	75.0	+191,088				21	
del Norte	(54.4)		27	58	-13		20.0
del Sur	(123.1)		9	7	14		30.7
Oriental	(48.0)		62	91	21		19.1
Quezon	82.3	+ 77,142	14	20	2	27	28.3
Zambales	92.4	+ 49,980	1	1	2	28	50.6
Zamboanga del Sur	104.2	+ 2,009	41	66	-10	17	15.5
B. Low density provinces which registered net out-migration							
Mt. Province	44.4	- 11,100	13	13	18	14	3.1
Bataan	54.5	- 1,849	-18	-20	3	20	22.0
Cagayan	64.6	- 19,025	6	7	- 9	14	14.7
Surigao (Ave.)	68.0	- 188					
del Norte	(87.2)		9	16	-12	18	22.7
del Sur	(56.8)		11	7	20	12	26.6
Samar (Ave.)	74.0	-157,545					
Northern	(87.5)		-16	-17	-13	15	20.2
Eastern	(62.4)		-11	-12	- 7	17	24.6

Table 152. (Cont.)

Province	Density 1970	Net inter-provincial migration, 1960-1970 (+ Gain; - Loss)	Percent change in No. of farms	Percent change in Less than 5 ha.	Percent change in 5 ha. or more	Index of total development	Percent urban
C. High density provinces which registered net in-migration							
Rizal	1529.7	+784,662	-19	-20	- 4	100	85.5
Pampanga	416.1	+ 38,097	- 9	-11	1	33	31.7
Cavite	404.0	+ 23,045	-10	-10	-16	33	50.2
Laguna	397.6	+ 60,355	- 4	- 3	-10	33	50.1
Bulacan	313.0	+ 88,787	-10	- 9	-22	31	47.9
Batangas	292.6	+ 31,740	6	8	-19	32	14.7
Mindoro Occidental	164.9	+ 20,615	69	100	9	19	24.1
Mindoro Oriental	132.4	+ 8,938	23	30	4	19	17.8
Bataan	157.5	+ 14,693	19	26	- 4	26	22.0
Nueva Ecija	161.1	+ 13,261	3	4	- 8	24	21.9
D. High density provinces which registered net out-migration							
Manila	34764.0	- 85,708					100.0
Cebu	321.2	- 97,243	-11	-10	-25	40	39.9
Albay	264.0	- 37,035	16	21	-12	30	37.7
Pangasinan	258.2	- 92,787	2	3	-11	30	19.7
La Union	250.3	- 7,527	12	14	-41	23	12.4
Iloilo	219.4	- 89,249	1	4	21	30	28.7
Sorsogon	199.4	- 57,556	1	6	-19	21	23.8
Negros Occidental	189.7	-258,396	-31	-33	-26	29	33.4
Tarlac	183.3	- 3,828	- 1	2	-16	25	16.7
Camarines Sur	180.1	-164,363	11	20	-15	24	21.3
Leyte	177.2	-200,428	8	12	-14	24	21.6
Bohol	166.0	- 69,965	4	6	-33	27	14.1
Misamis Occidental	164.9	- 13,178	6	9	- 8	26	15.9
Sulu	158.4	- 16,098	- 2	4	-20	19	17.5
Marinduque	150.2	- 11,262	- 9	- 5	-24	23	12.5
Capiz	149.6	- 25,817	1	- 1	3	25	15.1
Ilocos Sur	149.3	- 34,453	1	1	5	24	16.7
Aklan	144.9	- 30,351	-15	-13	-27	21	10.5
Misamis Occidental	132.4	- 6,814	7	15	-17	28	15.9
Negros Oriental	124.5	- 72,609	- 6	- 5	-10	21	13.7
Camarines Norte	124.1	- 4,392	6	15	- 2	25	26.0
Romblon	123.2	12,738	-10	- 9	-13	19	12.5
Lanao del Sur	117.6	- 80,128	39	73	-39	18	23.4
Antique	114.7	- 21,833	2	5	-36	21	13.9
Lanao del Norte	113.2	- 21,899	15	22	-17	27	8.7
Catanduanes	107.4	- 45,162	1	7	-19	23	17.6
Ilocos Norte	101.0	- 14,028	-14	-14	-24	24	24.2

Table 153. Percentage distribution of families by income and by regions, 1971 and percentage of employed persons in agriculture, 1972 (46).

	Below P2,000	P2,000 and more	Percent of employed persons in agriculture	% urban
PHILIPPINES	41.3	58.8	54.2	31.8
I. Manila & Suburbs	6.8	93.1	0.7	100.0
II. Ilocos & Mt. Province	54.3	45.6	66.1	17.7
III. Cagayan Valley	62.2	37.6	70.9	15.2
IV. Central Luzon	30.2	69.7	44.6	28.7
V. Southern Luzon	33.8	66.1	42.9	41.0
VI. Bicol and Masbate	53.4	46.5	54.8	19.2
VII. Western Visayas	40.7	59.1	63.9	26.1
VIII. Eastern Visayas	59.8	40.1	59.0	24.2
IX. Northern Mindanao	55.8	54.1	69.1	20.4
X. Southern Mindanao & Sulu	38.2	61.8	73.0	19.7

Table 154. Out-migration regions and destination areas of out-migrants from these regions (241).

Ilocos region percent going to		Birth to 1965	1965 to 1973
II	Cagayan Valley	15.71	15.50
III	Central Luzon	13.78	15.69
IV	Southern Luzon	5.13	7.26
XI	Southern Mindanao	22.77	1.47
XII	Metro Manila	38.63	53.42
	All other regions	3.98	6.66
	Total	100.00	100.00

Central Luzon percent going to		Birth to 1965	1965 to 1973
I	Ilocos	3.00	8.12
II	Cagayan Valley	8.64	1.88
IV	Southern Tagalog	9.88	12.30
XI	Southern Mindanao	26.88	8.97
XII	Metro Manila	48.82	66.72
	All other regions	2.78	2.01
	Total	100.00	100.00

Bicol region percent going to		Birth to 1965	1965 to 1973
III	Central Luzon	6.77	3.19
IV	Southern Luzon	32.82	20.45
VII	Central Visayas	1.26	1.84
X	Northern Mindanao	0.56	3.42
XII	Metro Manila	52.76	70.13
	All other regions	5.83	0.07
	Total	100.00	100.00

West Visayas percent going to		Birth to 1965	1965 to 1973
IV	Southern Tagalog	7.45	6.41
VII	Central Visayas	4.10	8.14
IX	Western Mindanao	9.15	2.36
X	Northern Mindanao	7.26	9.56
XI	Southern Mindanao	40.79	10.14
XII	Metro Manila	26.33	59.93
	All other regions	4.92	3.46
	Total	100.00	100.00

Central Visayas percent going to		Birth to 1965	1965 to 1973
IV	Southern Tagalog	0.83	2.45
IX	Western Mindanao	16.01	3.29
X	Northern Mindanao	28.40	26.73
XI	Southern Mindanao	40.81	43.24
XII	Metro Manila	5.85	12.13
	All other regions	8.10	12.16
	Total	100.00	100.00

Eastern Visayas percent going to		Birth to 1965	1965 to 1973
IV	Southern Tagalog	4.71	8.38
VII	Central Visayas	10.93	9.60
X	Northern Mindanao	15.20	7.76
XI	Southern Mindanao	24.98	14.31
XII	Metro Manila	37.99	54.40
	All other regions	6.19	5.55
	Total	100.00	100.00

Table 155. In-migration regions and the sources of in-migrants (241).

Metropolitan Manila Percent coming from:	Birth to 1965	1965 to 1973	Southern Mindanao Percent coming from:	Birth to 1965	1965 to 1973
I Ilocos	10.17	6.83	III Central Luzon	18.97	10.38
III Central Luzon	29.70	21.79	VI Western Visayas	18.71	5.16
IV Southern Luzon	14.95	24.61	VII Central Visayas	36.97	48.74
V Bicol	13.64	13.44	VIII Eastern Visayas	8.45	11.96
VI West Visayas	10.41	8.63	IX Western Mindanao	2.26	5.89
VIII Eastern Visayas	11.07	12.87	X Northern Mindanao	5.01	12.04
All other regions	10.06	11.83	All other regions	9.63	5.83

Table 156. Percentage distribution of migrant population 15 years old and over in the Philippines by detailed migration streams (241, 262).

Type of Stream	Birth to 1965		1965 - 1973		Total
A. Rural-rural	32.6		19.7		27.7
B. Rural-urban	29.9) - 100.0		25.7) - 100.0		28.3
Rural-Manila	13.6)		13.5)		13.6
1. Rural-poblacion		25.2		26.6	
2. Rural-city		38.0		37.8	
3. Rural-Manila		36.8		35.6	
C. Urban-urban	6.1) - 100.0		8.5) - 100.0		7.0
Urban-Manila	6.6)		16.7)		10.5
1. Poblacion-poblacion		0.9		0.3	
2. Poblacion-city		4.8		1.8	
3. Poblacion-Manila		7.8		1.5	
4. City-poblacion		10.2		6.3	
5. City-city		22.4		13.6	
6. City-Manila		19.8		15.1	
7. Manila-poblacion		3.0		5.4	
8. Manila-city		3.1		6.5	
9. Manila-Manila		28.1		49.8	
D. Urban-rural	9.5) - 100.0		11.2) - 100.0		10.1
Manila-rural	1.7)		4.7)		2.8
1. Poblacion-rural		19.8		19.9	
2. City-rural		64.0		48.7	
3. Manila-rural		16.2		31.4	
Total	100.0		100.0		100.0
Total Number . .	4,863,646		2,996,818		7,860,464

Table 157. Percentage distribution of migrant population 15 years and over in Philippines by migration stream and sex (241).

Migration Streams	Birth to 1965	1965-1973	Total
Males			
1. Rural-rural	35.0	22.4	30.5
2. Rural-urban	28.9	23.4	26.9
3. Rural-Manila	13.6	11.6	12.9
4. Urban-urban	5.2	8.9	6.5
5. Urban-Manila	6.2	16.6	9.9
6. Urban-rural	9.4	12.0	10.3
7. Manila-rural	1.7	5.0	2.9
Total N	2,376,250	1,320,913	3,697,163
Females			
1. Rural-rural	30.3	17.5	25.1
2. Rural-urban	30.8	27.5	29.5
3. Rural-Manila	13.6	15.0	14.2
4. Urban-urban	6.9	8.3	7.5
5. Urban-Manila	7.1	16.8	11.0
6. Urban-rural	9.6	10.5	10.0
7. Manila-rural	1.7	4.3	1.8
Total N	2,487,396	1,675,905	4,163,301
Total Both Sexes	4,863,646	2,996,818	7,860,464
Percent female	51.1	56.0	53.0

Table 158. Occupation in 1965 of period migrants to Metropolitan Manila, by sex and type of origin, N= 905,429 (241).

Type of origin and sex	Professionals and sales	Farmers & miners	Transportation & communication	Crafts-men	Service	No information	Total percent	Total number
Both sexes								
Rural	24.72	12.11	11.52	25.61	18.42	7.63	100.0	405,301
Urban	47.70	2.96	12.60	21.46	10.44	4.85	100.0	500,068
Total	40.97	5.64	12.28	22.67	12.78	5.66	100.0	905,429
Males								
Rural	21.64	17.46	17.85	31.53	9.89	1.63	100.0	153,449
Urban	42.49	4.05	18.03	22.83	10.17	2.42	100.0	219,253
Total	36.81	7.71	17.98	25.20	10.10	2.20	100.0	372,702
Females								
Rural	29.81	3.26	1.06	15.82	32.50	17.54	100.0	251,912
Urban	59.26	0.54	0.54	18.41	11.02	10.24	100.0	280,815
Total	49.40	1.45	0.71	17.21	18.21	12.68	100.0	532,727

Table 159. Cash income of period migrants to Metropolitan Manila, 1965 to 1973 by sex and type of origin (N = 905,429) (241).

Type of Origin and sex	Cash Income: Less than ₱1,000	₱1,000-2,999	₱3,000-4,999	₱5,000+	No Information	Total Percent	Total Number
Both Sexes							
Rural	66.83	16.11	7.58	4.98	4.50	100.0	405,361
Urban	50.95	18.75	14.01	13.08	3.21	100.0	500,068
Total	58.01	17.58	11.15	9.48	3.78	100.0	905,429
Males							
Rural	44.50	29.76	12.68	8.33	4.72	100.0	153,449
Urban	23.98	28.35	20.34	23.92	3.41	100.0	219,253
Total	32.34	28.93	17.22	17.57	3.94	100.0	372,702
Females							
Rural	80.31	7.87	4.50	2.96	4.36	100.0	251,912
Urban	72.02	11.25	9.06	4.61	3.05	100.0	280,815
Total	75,92	9.66	6.92	3.84	3.67	100.0	532,727

Table 160. Characteristics of squatters and slum dwellers in six Philippine cities, 1971 (198, 280).

	Baguio	Cebu	Davao	Iligan	Iloilo	Manila
1. Estimated % of city's population who are squatters & slum dwellers	14.2	25.0	22.3	10.0	32.0	33.0
2. No. of places affected by slum & squatters in the city	36	13	9	6	142 out of 162 barrios	23.3% in Manila city proper; 26.0% in Quezon City; 18.0% in Caloocan 13.0% in Manda-luyong*
3. Place of work						
a) In the community or within walking distance	53.9% (within city)	37.7%	42.6%	50.0%	39.1%	31.9% within Metro Manila
b) Length of time to get from home to place of work less than 20 minutes	59.2%	76.1%	59.2%	85.6%	49.7%	38.0%
c) Cost of transportation (P0.30 or less)	36.2%	21.2%	39.4%	19.8%	12.2%	25.0%
4. Housing and household arrangements						
a) Building materials used: new galvanized iron roof	72.3%	18.6%	56.8%	3.4%	33.9%	40.5%
old galvanized iron roof or nipa	26.4%	65.1%	36.8?	68.4%	43.5%	54.1%
b) No. of rooms in the house	22.5% (three)	46.5% (two)	39.8% (two)	61.4% (one)	33.3% (two)	44.7% (one)
c) Average household size	6	5	5	5	6	6
d) Home ownership	54.5%	85.4%	55.7%	65.4%	86.0%	47.2%
e) Renting homes	32.0%	10.9%	40.2%	29.4%	12.4%	45.4%
f) Not paying rent in land	82.0%	99.5%	73.2%	79.6%	97.2%	55.1%
g) No. of families living in household (more than one family)	4.9%	11.5%	11.4%	3.8%	10.2%	17.7%
h) Value of houses: if they were sold:						
P500 or less		55.6%		45.2%	36.1%	
P501 - P1,000		27.0%		20.0%	24.4%	
More than P5,000	23.8%		16.0%			8.9%
5. Services and amenities						
a) Have electricity in the house	80.1%	44.0%	89.6%	43.6%	47.9%	95.2%
b) Piped-in water	68.6%	90.4%	54.5% Rely on rain water	71.8% Artesian well	20.0%	64.5%
c) Fuel for cooking	86.1% (Kerosene)	77.7% (Wood)	46.0% (Wood)	87.6% (Wood)		66.1% (Kerosene)
d) Who is consulted when someone is sick:						
Gov't. hospital or clinic	74.0%	14.2%	21.3%	32.0%	28.3%	18.11%
Private doctor		64.7%	32.1%	38.6%	28.1%	23.21%
e) Presence of toilet facilities of some kind	94.9%	6.8%	96.4%	44.0%	89.0%	59.7%
6. Education of household heads (finished elementary schooling)	25.4%	24.6%	12.6%	34.4%	30.7%	31.7%

Table 160. (Cont.)

	Baguio	Cebu	Davao	Iligan	Iloilo	Manila
7. Family income:						
P201 to P300 monthly	39.8%	25.0%	35.5%	20.0%	25.0%	36.7%
Less than P150 a month		30.0%		45.8%	30.0%	
8. Community organization						
a) Respondents who feel that people in the community are cooperative	86.7%	95.6%	70.4%	76.0%	87.4%	89.8%
b) Respondents who say that people in the community engage in mutual assistance activities	53.7%	91.1%	55.5%	74.8%	64.9%	81.4%
c) Respondents who say they have many friends in community	94.9%	99.3%	95.3%	96.6%	96.2%	97.7%
d) Respondents who say their friends speak the same dialect	67.6%	95.8%	68.9%	87.0%	77.6%	75.0%
e) Respondents who saw nothing they did not like in their community	36.5%	35.6%	18.3%	15.2%	13.6%	12.5%
f) Respondents who do not want to move and could not conceive of any other place to live in	75.8%	77.5%	74.7%	86.6%	60.3%	35.5%
g) Respondents who said that if they needed a favor from a gov't. official or a politician, there is someone in the community who can help them	70.5%	69.1%	56.2%	36.0%	53.9%	45.5%
h) Respondents who said the gov't. was doing nothing to help them in their communities	27.3%	61.4%	61.1%	67.4%	55.1%	66.1%
9. Assessment of their life situation						
a) Present life situation better than past	85.7%	89.5%	82.1%	80.8%	68.3%	51.2%
b) Improved prospects for children because of better economic opportunities	95.1%	70.9%	84.9%	86.0%	51.7%	47.9%
c) Jobs are more available in new place		67.7%	47.9%	61.4%	31.1%	25.0%
d) Would stay in the community if given a choice	75.8%	77.5%	74.7%	86.6%	60.3%	38.3%
e) Expect their children to become professionals	35.7%	29.5%	61.7%		45.5%	33.4%
f) Unwilling to return to place of origin	88.1%	59.3%	73.8%	75.6%	65.3%	53.3%
10. Role of the family in migration						
a) Civil status at time of final move (Single) unmarried	42.3%	68.9%	49.4%	58.2%	54.3%	54.8%
b) Among married migrants head of the family moved first	48.3%	15.8%	60.2%	66.2%	59.2%	49.7%
c) Among married migrants family moved as a group	37.9%	35.4%	17.6%	15.8%	18.4%	23.4%
d) Married migrants who lived by themselves in city	72.0%	55.5%	44.4%	72.8%	63.7%	58.4%
e) Unmarried migrants who lived by themselves in city	14.7%	21.5%	18.0%	33.2%	9.5%	7.5%
f) Unmarried migrants who lived with relatives upon moving to the city	75.4%	44.2%	68.4%	60.1%	48.1%	69.2%

Table 160. (Cont.)

	Baguio	Cebu	Davao	Iligan	Iloilo	Manila
g) Heard about availability of land in the city from friends	27.7%	22.6%	45.3%	36.4%	37.9%	32.6%
h) Heard about availability of land for house in the city from relatives	37.5%	31.2%	42.8%	48.2%	36.5%	40.5%
i) Other family members besides household head are gainfully employed	20.7%	43.3%	30.5%	17.4%	21.6%	31.1%

Table 161. Mortality measures in 1965 and 1973 by rural, urban and Metropolitan Manila (241 cited in 346).

	Crude death rate		Expectation of life at birth	
	1968	1973	1968	1973
Philippines	10.8	10.6	58.7	59.2
Rural	11.3	11.1	58.2	58.5
Urban	9.5	9.0	60.3	61.3
Metropolitan Manila	8.5	6.6	60.3	63.0
Other urban	10.6	9.4	59.5	61.8

Table 162. Religious beliefs and attitudes of parents and their college-educated children (Freshmen and Seniors) (102).

	Parents	Freshmen	Seniors
	Percent of respondents endorsing each item		
A. Religious beliefs and attitudes			
1. Believe in God	98	94	86
2. Have definite or occasional doubts about practices of the church	37	39	74
3. Have definite or occasional objections to religious practices	34	26	67
4. Membership in church organization	18	18	17
5. Membership in non-church organization	22	22	69
6. Give financial contribution to the church	95	85	81
7. Go to confession at least once a year to as often as possible	76	78	70
8. Go to communion at least once a year to as often as possible	76	87	70
9. Believe in supporting the church from religious service fees	49	22	27
10. Believe in organized fund-raising	3	26	31
11. Go to priest for help or personal guidance	39	32	16
12. Have heard of the ecumenical council	31	47	53
13. Willing to have non-Catholics for gangmates	45	65	80
14. Willing to go steady with non-Catholic	37	50	73
15. Willing to marry non-Catholic	35	39	63
16. Willing to have child become a religious	41	30	12
17. Willing to give up religion to marry non-Catholic	33	14	14
B. Concept of God			
18. Believe that God is creator	-	95	84
19. Believe that God is merciful	-	85	69
20. Believe that God is not selfish	-	92	78
21. Believe that God provides	-	72	35
22. Have no doubts about belief in God	-	68	49
C. Belief in man's efforts as responsible for the following:			
23. Crop yield	62	71	83

Table 162. (Cont.)

24. Choice of spouse	24	48	66
25. Number of children a person can have	19	25	60
26. Man's life span	7	5	12
27. Choice of occupation	73	84	91
28. Income	76	81	92
29. Health	49	58	72
30. Catching colds	15	50	51
31. Believe that science and religion are separate	55	53	69

Table 163. Farmer-parents' educational aspirations and expectations for their children, 1963-1969 (seven-farming villages in Laguna) (70).

	Aspirations		Expectations	
	1963	1969	1963	1969
	- Percent -			
1. Elementary schooling	29	8	47	29
2. High School	21	21	14	30
3. College	36	69	6	14
4. Don't know	8	1	27	21
5. It's up to them to decide	6	1	6	6
T o t a l	100	100	100	100
N =	370			

Farmer-parents' occupational aspirations and expectations for their children	Aspirations 1963	Aspirations 1969	Expectations 1963	Expectations 1969
	- Percent -			
1. Farming	22	4	38	25
2. Blue-collar	19	16	20	20
3. White-collar	31	53	6	10
4. Don't know	11	6	30	31
5. It's up to them to decide	17	21	6	14
T o t a l	100	100	100	100